THE

NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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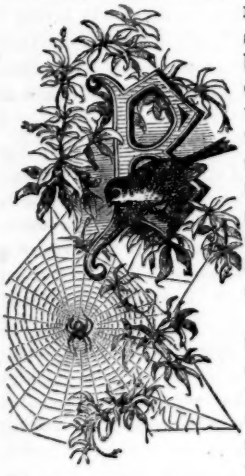
A SHORT TALK ABOUT JUNE.

"And after her, came jolly *June*, arrayed
All in green leaves, as he a player were;
Yet in his time he wrought as well as play'd,
That by his plow irons mote right well appear."



RIGHT ploughshares are taken by the poet as evidence that the work of June was well done, and that due preparation was made for such succeeding duties as the growing crops might demand.

But what does this common word *June* mean? A word that always suggests pleasant memories, and revives the recollection of birds and flowers, of walks and talks in the garden, and of the fragrance of roses.

RICHARD VERSTEGAN wrote a book nearly three hundred years ago upon "*The Restitution of Decayed Intelligence*," and among other things he says that the old Saxons gave the name of *Weyd-monat* to the sixth month, "because their beasts did then *weyd* in the meaddowes, that is to say, goe to feed there; and hereof a meadow is also in the Teutonicke called a *weyed*, and of "*weyd*" we yet retain our word *wade*, which we understand of going through watery places, such as meadows are wont to be."

It is interesting to observe how closely the New England people have adhered to the old Saxon meaning of the word meadow. In some parts of our country all the upland mowing fields are called meadows, while with us they are the *low* grounds, bearing an inferior quality of grass, and many of them subject to an annual overflow of water.

Some other writers say that the word "weyd" is probably derived from the German word "weyden," which means "to go about as if to pasture." Others still find its derivation in a different source. Mr. Leigh Hunt says that the name of *June* gave rise to various etymologies; but the most probable one derives its name from *Juno*, in honor of whom a festival was celebrated at the beginning of the month. *Juno* was the Queen of the gods, who rode in a superb chariot, drawn by peacocks. *Hebe* was her attendant. HOMER gives the following vivid picture:—

"At her command rush forth the steeds divine;
Rich with immortal gold their trappings shine.
Bright Hebe waits: by Hebe, ever young,
The whirling wheels are to the chariot hung.
On the bright axle turns the bidden wheel
Of sounding brass; the polish'd axle, steel;
Eight brazen spokes in radiant order flame;
Such as the heavens produce; and round the gold
Two brazen rings of work divine were roll'd.
The bossy naves, of solid silver shone;
Braces of gold suspend the moving throne;
The car, behind, an arching figure bore;
The bending concave formed an arch before;
Silver the beam, th' extended yoke was gold,
And golden reins th' immortal coursers hold."

Such was Madame *Juno's* team, and we rather think it would outshine those of the yellow-gloved gentry on the "Fifth Avenue," or "Boston Neck."

June is the sixth or middle month of the year, and is, perhaps, crowded with more beautiful things to delight the senses and make the world appear attractive than any other month of the year. The temperature of the air is mild; the hopes of spring are realized, yet the enjoyment is but commenced; we have all summer before us; the singing of the birds, the hum of the bees;—little clouds lie in lumps of silver about the sky, and sometimes fall to stimulate the growth of the herbage; the fields are in blossom with the sweet and beautiful clover, and the roses, garden and wild, fill the air with their grateful fragrance.

As evening approaches, it is a *June* evening; there is nothing else like it. The sights and sounds are peculiarly *June*. In the doubtful dusk, the bat and the owl venture forth, flittering through the glimmering quiet. As night grows deeper, the moon is most silvery, the sky at once darkest and clearest; and when the birds have done singing, you may hear happy solos and choruses from the denizens of the pools, and the voices of the brooks of the spring running and tumbling through their stony channels; or, as *Coleridge* has it:—

> A noise like of a hidden brook,
> In the leafy month of *June*,
> That to the sleeping woods all night
> Singeth a quiet tune.

Nature has her peculiar ways in all seasons, and it never is a waste of time to observe them. We grow wiser, stronger, better, by such observation. It helps us in the family, in the field and in the granary. It opens a book of revelation to us in all the labors of the farm. It instructs, purifies and softens the rugged labors which the month of June demands, and leads us pleasantly from "Nature up to Nature's God." Let us mingle it, then, with our daily toil, and find in it perpetual encouragement to labor on manfully and cheerfully in the duties of life.

While we preach this lay sermon, however, we are not forgetful of what is to be done in this busy month, in order that the farm work shall be performed in its appropriate time.

Quite an extended observation has led us to believe that an opinion has become common that late planting is as favorable as early planting. In consequence of this, nearly half of our corn crop is not planted until about the first of June, and many of the potatoes somewhat later. The result of such a practice was sadly felt in the early and severe frost of last autumn, when hundreds of acres of corn were smitten with frost before the grain was ripe, and greatly injured. So it was with the potatoes. In many fields the vines were in the midst of a vigorous growth when arrested by the frost, and the crop essentially damaged. That the season was cold and backward last spring, is true, nevertheless numerous fields on high and dry lands were not planted until the very last days of May.

We ought to plant early so that we may do the June work early. Most of the hoeing for the season ought to be done before the work of haying comes on.

Another change of opinion has also taken place among farmers, which we think will result in much good, and that is in *commencing* to get the hay crop in June. If haying is not commenced until all the grass of the farm is in suitable condition to be cut, a considerable portion of it must be so far advanced as to essentially reduce its value.

All the stock like grass better than any other food; so that the nearer the hay resembles grass, the better the cattle will like it, and the more valuable it will prove for them. It is a common remark that good *rowen* is highly relished by cows and causes an unusual flow of milk. Why? Because it is cut and cured when the grass has attained only about one-half its natural growth,—no seed is formed, and it retains nearly all its grass quality. This quality is what we need to retain in all the hay crop. It may be secured by cutting the grass as soon as it comes into blossom, and curing it without much exposure to the sun. If allowed to stand until the seed is formed, a striking change would take place in most of it, which would greatly reduce its value. The sugar and starch of the leaves and stems would principally go to perfect the seed, leaving the plant almost a dry and tasteless woody fibre.

Many excellent farmers now commence their haying as early as the 20th of June, and state that by so doing they not only get more fodder, but that of a greatly superior quality.

Most fields in good condition may be cut twice, and both crops are improved by the early cutting.

FARMERS AND THE WORKING CLASSES.

There have been so many homilies read at agricultural fairs, and published in agricultural books and papers, on the great mistake which the sons and daughters of country farmers make in leaving the farm for other kinds of business, that many of them probably are tired of all exhortation upon the subject. Young folks in these days have certain inalienable rights, with which it is not safe to intermeddle, among which are the choice of a partner and the selection of a profession. And those who attempt to interfere in either of these matters often hasten just that consummation which they most devoutly wished to prevent.

It is, therefore, possible that the great amount of lecturing which has been volunteered against leaving the farm has persuaded ten to shoulder their packs as often as it has induced one to remain. Especially are we apprehensive that little good has resulted from the glowing commendations of farm life by those who "look one way and row the other." Men who have acquired fame and fortune in politics or physics, in law or letters, in divinity or dry goods, may "hold an audience," as they often have done at farmers' festivals, but can they hold the thoughts of their young auditors from such inconvenient old proverbs as "actions speak louder than words?"

This is a free country; a fact that is generally found out early in life by the rising generation, and perhaps the sooner we old fogies acknowledge it the better. The right of all to the "pursuit of happiness" is guaranteed in express terms by our "Declaration of Independence." The road, then, that leads to happiness, to distinction and honor, to an easy life and a comfortable old age, is a lawful road, a public highway, and it will be travelled whatever may be its direction. We should not hedge it up if we could, and we cannot if we would.

If all the girls and boys in the United States can do better in cities and villages than in the country, why should they not all go there? Why ask them to act contrary to their best interests? If such are their convictions, young people may be talked almost to death, but when convinced against their will, they're of the same opinion still; and why should we be surprised to find them at last acting on these convictions?

In this view of the case we are disposed to say to the boys and girls, as we have sometimes said to our oxen and horses, "well, if you won't go where I tell you to, then go where you please, and see how you come out." We see no other course, and we believe this to be a safe one. Throw the responsibility entirely on them. Let them stay on the farm or go into the shop, the store, the office, or wherever they can, or think they can, do best; with the understanding that they do so entirely on their own hook. Let them do it as an experiment of their own, for the result of which they are individually responsible.

With this freedom and personal responsibility we believe that young people may be trusted to work out their own fortunes, and to settle this long agitated question of the balance of the professions.

When cities and villages become so full that people can live less comfortably there than in the country, we believe they will go into the country to live. When there are so many mechanics, merchants and professional men that less money can be made or a less comfortable support be secured in those occupations than by tilling the soil, then individuals will leave them for farming. Until this is the case, all the talk and all the eloquence that can be used is just so much breath lost. As "water finds its level" so will the professions.

Heretofore in this country the professions and trades have been better paid—apparently at least,—than farming, and hence people have left farming for the trades and professions. This we assume is the whole secret of the stampede of country people, which has so alarmed our speakers and writers.

Already, we believe, rents, fire-wood, provisions and all the items of family expense have advanced in cities and villages faster than wages or income, and that not a few city people find trouble in making "the ends meet,"—much more trouble than they formerly did.

This opinion we find confirmed by a late public document—the report of David A. Wells, United States Special Commissioner of the Revenue, appointed by the Secretary of the Treasury. From this document we print a few extracts, beginning with a letter from Hon. Amasa Walker, of Massachusetts to the Commissioner.

"Sir,—The following table, based on the record of ordinary and actual sales, will show you the comparative prices of twenty leading commodities of domestic consumption in the town of North Brookfield, Mass., in the summers of 1860 and of 1868:—

Commodities	Prices in 1860.	Prices in 1868.	Per ct. of increase.
Beefsteaks, 30 lbs. ₩ lb. . .	$0 12	$0 25	108 3
Beef, corned, 15 lbs ₩ lb . .	08	15	87.5
Pork, fresh, 20 lbs. ₩ lb . .	10	20	100
Lamb, 10 lbs. ₩ lb	11	25	127 3
Sausages, 10 lbs. ₩ lb	13	22	69.2
Butter, 30 lbs. ₩ lb	22	45	104 5
Cheese, 6 lbs. ₩ lb	12	20	66 6
Lard, 12 lbs , ₩ lb	14	25	78.5
Eggs, 4 dozen, ₩ doz. . . .	17	35	105 9
Flour, 1 bbl., ₩ bbl	8 50	15 50	82.3
Fish, fresh. 15 lbs, ₩ lb . . .	5	12	140
Beans, 8 quarts, ₩ quart . .	8	17	112.5
Rice, 5 lbs, ₩ lb	5	13	160
Sugar, white, 10 lbs , ₩ lb .	10	17	70
Sugar, brown, 12 lbs., ₩ lb .	8	15	87 5
Molasses, 1 gal., ₩ gal . . .	45	80	77.7
Tea 2 lbs., ₩ lb	50	1 25	150
Coffee, 1 lb, ₩ lb	20	40	100
Vinegar, ½ gal., ₩ gal . . .	20	50	150
Potatoes, 3 bush. ₩ bush .	50	1 25	150

"Average advance in cost of above quantities from 1860 to 1868, 98.7 per cent.

"The following table will also show you the advance in the prices of labor in the boot and shoe manufacturing establishment of E. and A. H. Batcheller & Co., in the same town, during the years 1860 and 1868, respectively:—

	1860.	1868.	Advance
Common hands ₱ hour	16⅔ cts.	20 cts.	20 ₱ ct.
First class hands, ₱ hour	22½ "	27½ "	22.2 "
PIECE WORK.*			
Russet brogans, ₱ pair	15 "	21 "	40 "
Black brogans, ₱ pair	16 "	22 "	37½ "
Crimping and treeing boots, per pair	95 "	— "	38½ "

"Average advance in the price of labor, estimating equal quantities of each kind, 31.6 per cent.

"From the foregoing statement it appears that the commodities enumerated (in the quantities specified) would have cost the *common* laborer, working ten hours a day at 16⅔ cents per hour, the labor of 20 6 days in 1860, while in 1868, when receiving 20 cents an hour, he would have been obliged to work 34.2 days in order to purchase the same articles for the support of himself and family. His condition, therefore, compared with 1860, exhibits a loss of 41 per cent.; that is, where he then received 100 (reckoned in articles to eat, drink and wear) for his labor he now receives but 59 cts.

"In the case of the brogan-maker, the best paid laborer mentioned, the loss is not so heavy, but still very severe. His pay has advanced from 15 to 21 cents per pair. To purchase the above commodities, he would

In 1868 have been obliged to make	325 pairs,
In 1860, only	229 "
A loss of the making of	96 "

i. e., so much more work to be done before the workman receives the same amount of flour, meat, &c., as in 1860. This equals a loss of 29.2 per cent.; or, in other words, when in 1860 he received 100 he now receives but 70 8 cents.

"Rents have greatly increased, but to what precise extent cannot be so readily ascertained as in the case of commodities. The advance cannot be less than about sixty-fixe per cent.

"Fuel has advanced—say, wood from $5 to $7 per cord, coal from $7 to $12 per ton—an average of about 60 per cent.

"The prices of commodities I have ascertained by a personal examination of the books of one of the principal dealers, and am satisfied that they are correct, not only from the showing of the accounts, but from my general knowledge of current prices.

"The rates of labor have been obtained from direct inquiry of the largest boot and shoe manufacturing concern in the State, and are undoubtedly accurate and reliable.

(Signed) "AMASA WALKER.

"*North Brookfield, Mass., Feb.* 2, 1869.

The following shows the prices paid in Washington for labor on public buildings:—

	1861.	1868.	Increase.
Carpenters	$2 00	$3 50	75 per ct.
Stone masons	2 50	4 00	60 "
Brick masons	2 50	4 00	60 "
Machinists	2 00	3 00	50 "
Plumbers	2 25	3 50	55 "
Blacksmiths	2 00	3 00	50 "
Laborers	1 25	1 75	40 "

General average increase of skilled workmen, 58⅓ per cent.

In the Merrimac Manufacturing Company in Lowell, Mass., the average advance in the wages paid in 1868-9, in the "carding" department, omitting overseers, was 60 per cent.; in the "spinning" department, 52 per cent.; in the "dressing" department, 75 per cent.; in the "weaving" department, 53 per cent. In the repair shop of the same corporation the average advance in the wages of mechanics was 63 per cent.; of overseers in all the departments, 36 per cent. In different branches of mechanical industry, in the city of Lowell, the advance in the wages of machinists, carpenters and blacksmiths was 50 per cent.; of stone cutters, 100 per cent.; of stone and brick masons, 75 per cent. over 1860.

A list of prices of 21 different articles of domestic consumption, similar to that given above by Mr. Walker, shows an advance in Lowell and Lawrence of 91.65 per cent. from 1860 to 1869.

He also presents a large number of letters from leading manufacturers in different sections, giving evidence as to the relative condition of labor and wages in 1869, as compared with 1860.

The Colt's Fire Arms Company of Hartford, have more applicants for work than in 1860 and pay 50 per cent higher wages; the Buffalo and Erie Railroad pay 30 to 50 per cent. higher and can get all they want; the American Screw Company pay 60 to 70 per cent. higher, but the cost of living has advanced still more; C. Aultman & Co. of Canton, Ohio, manufacturers of reapers and mowers, are refusing fifteen to eighteen applications for work per day, never knew skilled labor so abundant, and find men asking for the means to live until work can be got; Stephenson & Co., carbuilders of New York, are employing fewer men, sometimes running short time, and pay 50 per cent. increase in wages over 1860; T. W. Griswold, knit goods, Wethersfield, Conn., report their mill idle, having run at a loss last year, wages there 50 per cent. above 1860; Chickering & Sons, labor more fully employed and wages 40 to 50 per cent. higher; Woodruff & Beach of Hartford employ less men by one-third and pay one-third higher wages than in 1860; the Vermont Central Railroad say that common labor is abundant and pay 50 to 66 per cent. higher than in 1860; Miles Greenwood of Cincinnati finds labor not so fully employed as in 1860 and pays 66 per cent. higher wages; J. Ryle & Co., silk manufacturers, Paterson, N. J., 79 per cent.; L. Fullam, boots and shoes, West Brookfield, Mass., 50 per cent.; Ames Manufacturing Company, Chicopee, Mass., for skilled labor 71 to 90 per cent., for common labor 70 per cent.

In the town of Canton, Ohio, the advance in wages employed in the manufacture of agricultural machinery was from 55 to 60 per cent. in Nov., 1866, as compared with the same month of 1860, the advance in the cost of living, as deduced from the prices of sixteen of the leading articles of domestic consumption, viz.: flour, corn, meal, buckwheat-flour, beef, butter, eggs, lard, potatoes, apples, chickens, dried apples, coffee, sugar, syrup, calicoes and muslins, showed an average increase of about one hundred and thirty per cent.

A real estate agent in Philadelphia furnishes a statement of the monthly rent of 26 houses in Philadelphia, in 1860 and 1869. They rented in 1860 for $382.34; in 1869 for $882.00,—an advance $499.67, or 130.69 per cent. increase.

The following is an extract from the report of Gen. H. K. Oliver to the Legislature of Massachusetts, "on the employment of children in factories," which is endorsed by the Springfield *Republican* "as a tolerably good description of what most of us have seen:"—

"Certain parties are called the great manufacturers of New England, and they have been engaged

*Those who perform piece-work cannot rely upon as constant employment as those who work by the hour, which accounts for the difference in price.

as such for generations, yet the man of the family that has been in their employ, and come out of it with more than enough for a decent interment, is yet to be found."

The foregoing is but a small portion of the statistics presented in Mr. Wells' report. It may be proper for us to add that they were not collected for the purpose of inducing anybody to leave the city or to persuade any one to remain upon the farm. His object was to show Congress that these city and village laborers are so much worse off than they were in 1860, that they are entitled to its aid.

We submit our extracts to the consideration of our young friends who are deciding on a choice of profession and location, with the simple remark that to our mind the facts cited by Mr. Wells show that people have crowded the trades and the professions, the villages and the cities, until the cost of living is greater than the means; until the consumers exceed the producers; until employers can dictate wages and the landlords rent; until cities and villages are full, and the country empty.

If left to itself, the great law which has ever governed supply and demand, will regulate all apparent discrepancies between 1860 and 1869, between farming and other kinds of business, between the city and the country. The only trouble is that individuals may suffer from acting in disregard or in ignorance of this law.

NEW ENGLAND AGRICULTURAL SOCIETY.

At a meeting of the Trustees of this Society, held in this city, April 27th, the Secretary, Hon. Daniel Needham, read a communication from the Trustees of the Maine Society, proposing to unite with the New England Society in an exhibition on the grounds of the Forest City Park, in Portland, during the second week in September next.

On motion of Richard Goodman, of Lenox, the proposition was accepted, and the President and Secretary were authorized to contract with the Trustees of the Maine Society for holding the Fair in accordance with the proposition.

The general arrangements for the Fair were then debated and adopted, being nearly the same which governed the Fair held at New Haven last year. Letters of inquiry respecting the Fair were ordered to be addressed to Col. Needham at Boston, or S. L. Boardman, Secretary of the Maine Society, at Augusta. The Fair will commence September 7; and it was agreed that no animal should be precluded from taking a sweepstakes premium, or excluded from competition for the first premium in any class, by reason of having taken the same at previous Fairs of the Society. An additional premium of $25 is to be offered for the best bull five years old and upward, with specimens of his stock of not less than five.

The list of premiums for trotting horses was left with the Trustees of the Maine Society to arrange, with the understanding that no such extravagant sum shall be appropriated as was paid at New Haven last year.

Premiums were offered for grade sheep, and the rules laid down by Halstead were adopted as a standard of excellence in judging the quality of poultry.

THE CALIFORNIA STEAM PLOUGH.—The editor of the Butte, California, *Record* recently witnessed an experiment with the Locher Steam Plough, on which the inventors have been at work a year or two past. On this occasion the plough was run at odd spells during the day, without any particular design of showing what amount of work it was capable of doing in a given time. One gentleman, however, timed the machine while running across the field. It made four hundred feet in three minutes, ploughing a strip twelve feet wide. This is at the rate of two and one-fifth acres per hour, without allowance for turnings or stoppages, and probably when at its highest speed. There was a large crowd of people on the ground as spectators, all of whom were pleased with the performance of the little "dummy." The editor asks if thirty bushels of wheat can be raised to an acre on land ploughed only three or four inches deep and left in a lumpy condition, what may we expect to raise on land worked to the depth of six or seven inches, and thoroughly pulverized, as it is done by the Locher plough?

For the New England Farmer.

THE GARDEN IN JUNE.

In no month of the year are the poetry and prose of the farmer's or gardener's life more intimately mingled than in June. Every surrounding of earth, air and sky are full of inspiration. The elements are all striving, individually, to express the joyous fulness which spring only awakened. As steadily the sun climbs higher and higher in his shining path, the shortened shadow at each succeeding noon marks his progress until his full glory is reached in the summer solstice, where he rests for a day or two, and then takes to a back track, fitly represented by the constellation of the zodiac, which he is apparently passing through this month. The constellation Cancer, so called from its fancied resemblance to the crab, which goes forward or backward equally well, is the representation of the month, the days of which increase till the 21st,—when summer really begins,—and then, after standing the same a few days begins to decrease.

But it would ill become us to follow such an example of retrogression in our garden operations. We should go constantly forward, improving on each passing day. Our aim in all things in this life should be a high one, and then we should constantly press forward to that end without any retrograde movement on our part.

Although June is the pleasantest month of

the year, in our northern climate, it also brings with it abundant labor in the garden, as well as in the field; but in the garden we are cheered by the rapidly increasing returns which we receive as the reward of our labors. Our table presents us daily a pleasing variety from the garden,—asparagus, greens in variety, lettuce, cress, radishes, rhubarb, strawberries,—all good, fresh and crisp; how unlike the supply that reaches the tables of our large cities, which, having been transported a long distance, has lost much of its freshness and healthfulness.

ASPARAGUS.—The cutting should cease by, or soon after the middle of the month, so as not to exhaust the roots. Hoe off and pull out the weeds, and give a dressing of salt or brine to keep them down.

BEANS.—Plant dwarfs for succession, and have a supply for canning. Train running sorts to the poles. Small Limas planted the first of the month in rich, warm soil, and *well* cared for, will give good shell beans for late succotash, for drying or canning.

BEETS.—The main and winter crop should be planted before the middle of the month. Hoe, weed and thin the earlier planted. Those pulled out make nice greens.

CABBAGE TRIBE.—Transplant from the seed beds cabbage, cauliflowers, broccoli, kale, &c., as soon as the plants are large enough. Give them all well enriched soil that was not occupied by any of the same family last year, and hoe as soon as they take root, and the more frequently, the faster they will grow.

CARROTS.—Weed and hoe as early as possible. The bane of this crop is weeds, and the earlier the crop is worked the easier weeds are kept in subjection. Seed may yet be planted, if done the first week in the month in highly enriched soil, first soaking the seed, and a good crop realized.

CORN.—Hoe and cultivate that already planted; give liquid manure, plaster or ashes, and encourage to a rapid growth and early maturity. Plant for succession and late crops. There is time enough after the middle of the month to obtain good mature boiling ears from the Trimble and other kinds, before fall frosts come to cut it off. Provide for a full supply to dry for winter use. Some claim that they can preserve it successfully by canning, but the more practical way is to dry it, which can be successfully done in any family.

EGG PLANTS.—Plant these out as soon as cool nights are over. Enrich the hills well, and as soon as the plants are established, hoe and hoe frequently, giving, occasionally, liquid manure. The best time to apply this is when it rains moderately.

MELONS, SQUASHES AND VINES.—Hoe, thin and keep free of weeds, bugs, &c. The striped bug, squash bug and borer will need looking after frequently, to keep them from injuring the crop seriously. The eggs of the squash and striped bugs will be found on the under side of the leaves

POTATOES.—Only early potatoes are planted in the garden; and to have them mature early, they should be planted early, with good clean culture. Give a sprinkle of ashes, plaster and salt mixed, in the proportion of eight of ashes, two of plaster, and one of salt, and work it in around the plants well.

SWEET POTATOES.—Set sweet potato plants the first of the month, in well enriched conical hills or ridges. The sweet potato can be successfully raised in all our New England States with a little care and attention to details, and thus add a very desirable luxury to the vegetables capable of being placed on the farmer's table.

TOMATOES.—Pinch back rampant growers. A variety of modes are in vogue for training and pruning, some of which not only give an ornamental appearance, but tend to the earlier maturity of the fruit.

WEEDS do not grow in a *well* kept garden; the atmosphere is not congenial to them, neither is there room for both good vegetables and weeds. WM. H. WHITE.

South Windsor, Conn., 1869.

COOLING MILK.—In an article on this subject in the *Utica Herald*, Mr. Willard says he regards this subject of great importance to farmers and cheesemakers. Unless properly cooled as fast as milked it is often so far advanced in decomposition, if not actually sour and tainted, when received at the factory, that it is impossible to work it up satisfactorily, however much care may be taken to keep it cool after it is received. Of the several inventions for cooling milk which have made their appearance within the past year or two, Mr. Willard says, they are too complicated, if not too expensive, and too difficult to keep clean, ever to become generally adopted. Yet enough has been developed, he thinks, to authorize the expectation that some simple apparatus for the purpose will soon be devised. Until a better process is known the cans must be set in a tub or trough of cold water and the milk be frequently stirred from the bottom with a dipper or other convenient article. It will not do to carry the milk a mile or two in hot weather, without first removing the animal heat and the animal odors.

—R. Baker, an Ohio breeder of Short-horns for dairy purposes, gives a list of thirteen of his animals in the *Ohio Farmer*, which have been tested for butter and milk at the Fairs of the State and Loraine County Agricultural Societies, many of which took first premiums. Different animals are reported to have produced from 16½ to 20¾ pounds of butter, and from 422 to 551½ pounds of milk, in a trial of ten days, fed on grass only.

EXTRACTS AND REPLIES.

COOKING FOOD FOR COWS.—BONES FOR HENS.

In the last FARMER I notice some remarks by Mr. Loring upon feeding cows, made at the milk producers' convention at Nashua. He says he has tried all methods and does not now steam food for them. Now I had supposed that meal reduced to gruel or pudding, and hay cut and steamed would be far preferable. Indeed I have heard it asserted that one-half might be saved in feeding meal by cooking. But if nothing can be gained in this way, I should like to know it. If it is best to feed cows as horses are fed, on cracked corn and oats, or as cows are now very generally fed, on dry Indian meal and dry hay, I do not see how any money is to be made in this section in raising milk; for who can take a stock of cows and feed them thus, and sell all the milk and manure for enough to pay for the food consumed? I do not think any one can in my neighborhood. I see, however, by the same number of the FARMER that a man in New York steams all his food, except hay, having a steam engine in his barn.

Now, it seems to me that this is an important subject; one in which all are interested, as all want milk. If anything is to be gained by steaming food for cows, especially Indian meal, why has not some one found it out? Why not cook meal for horses? Some consume half a bushel daily. If one-half, or, as others assert, one-quarter will answer as well, would it not pay? And then, too, does not such highly concentrated food greatly injure both cows and horses? If any one of your readers has thoroughly tried steaming and found it a failure, I should like to hear from him the particulars.

Can you inform me whether I can get bones cracked small enough for hens to swallow, any cheaper than to do it by hand? I mean those fresh from the meat shops. I think such bones the best food in winter, as they prefer them to scraps. If your correspondent who burns bones for his hens, will try a few pounded raw bones instead of those charred, I think his hens will know the difference, and show by their action that they think them a great deal the best. C. F. KEYES.

Westford, Mass., March 4, 1869.

REMARKS.—This question of cooking food is still an open one, although it has been discussed in agricultural papers for many years. Perhaps our Agricultural Colleges will decide this and other questions which farmers cannot settle among themselves. But if they should settle them, would they stay settled, while there is any truth in such old sayings as "what's one man's meat is another man's poison," "many men of many minds," and the like? As it is not for us to dictate to farmers any system of practice or any course of procedure, we publish from time to time articles on both sides of this as well as of other questions, from theoretical and practical men. While the New York Farmers' Club, at a late meeting, was discussing the advantages of cooking food for poultry, Dr. J. V. C. Smith said he "did not believe in having anything artificial about chickens; this cooking their food is contrary to the established rules of the faculty. Doctors know it is all false and unnatural. Beside it is something undignified for a rational, intellectual being like man, made in the image of his Creator, to be puttering over chicken dough and cooking the food of animals, when their Creator has made them with a mill and a stove in their own economy to do their own grinding and cooking." He also believed that our diseased meats, in many instances, were the consequences of such artificial and unnatural feeding. Whether the Dr. would have us turn our poultry and animals into the woods, as being more "natural" than a barn, we are not informed. Now, as our correspondent says, other Doctors save half the food by cooking! Who shall decide when doctors disagree?

The bone mills can furnish bones ground as coarse as you may desire; and we think they would do well to put some into the market for the purpose of feeding poultry.

CULTURE OF ASPARAGUS.

Last fall I made a bed of sufficient size, three feet deep, and filled up alternately with rich muck and hog manure, mixing all well together. I want this patch for an asparagus bed, and as spring is drawing near, will you or the readers of the FARMER inform me the best course to take in planting and culture to be early and profitable for the house? D. D.

Shaker Village, N. H., March, 1869.

REMARKS.—Let the rows be one foot apart, and the plants the same in the rows. If the rows run east and west, so as to receive the full power of the sun's rays, the product may be a little earlier. Purchase good, three years old roots, and place the crown of the root three or four inches below the surface. Some persons think five inches is not too much. If you have roots as old as we have stated, a few messes may be safely cut from them the second year, but if they are younger, you will have to wait longer for a crop. The transplanting is like that of other plants, only that the crown of the root must be set deeper. Keep all weeds out, and enrich the bed every autumn with good compost manure. If the bed is covered in November with coarse litter from the horse stalls it will help it. After cutting is commenced, all the plants should be taken, until it is time to leave off altogether, which is about the middle of June. A bed well set with good roots and well tended will last from twenty-five to fifty years.

DISEASES OF STOCK.

I was considerably interested in the article of F. A. C. Nichols, in relation to the unknown disease among his sheep. The cause or origin of the disease seems to be somewhat obscure, although it might have arisen in a very simple manner. We are apt to run directly for curatives or medicines when our creatures become diseased, and neglect to inquire into the causes that produced the calamity. Unless we destroy the root of the matter it will do no good to clip the branches. Fever or inflammation always attends an unnatural condition of the bodily organs in both man and beast. A slight cold will cause internal fevers and other complaints, because the pores and outlets of the body become obstructed, and cannot perform their natural and healthy functions.

When the issues or pores in the leg of the hog, for instance, become stopped, the animal is always feverish, owing to the waste matter being retained

and thrown upon the internal organs; this causes these also to lose their natural functions. Open the issues by proper remedies, and place the animal in a condition to keep them so, and the hog will be generally healthy. The disease among neat cattle, commonly called horn ail or brain fever, is generally caused by a cold, which impairs the tone of various organs of the head and produces inflammation or fever.

I have no doubt that many diseases among sheep arise from a similar cause. Some years ago I had the care of sheep, and used to examine carefully all that were sick or died, but never saw any that were exactly like those spoken of by Mr. N. In all sheep that I have examined, I have noticed a small orifice between the parting of the hoofs, which I call their issues. I have often found these little holes or pores obstructed in diseased sheep, and I used to apply sweet oil, rubbing with a small corn cob. If these openings in sheep are similar to the issues in the legs of other animals, and serve as outlets, it is very necessary to keep them open and healthy, as their obstruction induces internal inflammation of the glands and other organs, that terminates in loathsome disease.

If I had sheep affected as those spoken of, I should pay strict attention to their feet, applying a little sweet oil, give some mild physic, change their diet, and keep them in a place where they would have a pretty even temperature.

W. W. TRASK.

Reading, Mass., March 28, 1869.

GOOD YIELD OF WHEAT AND BARLEY.

As an illustration of the "sunny side" of wheat raising in Northern Vermont, I have to note the following:—Mr. Henry Chase, of Lyndon, Vt., raised on 2¼ acres of land, last season, 82 bushels of excellent wheat. Two bushels per acre was the amount sown. The kind of wheat grown was a bald variety known as the "gold-drop." The ground was in good condition, as a matter of course, and was planted to corn the year previous.

The season before, Mr. Chase raised on about three acres of land 171 bushels of barley. The amount of seed sown per acre was four bushels. This piece of land was also in good condition, and was planted the previous year to potatoes. It was enriched with barnyard manure; no phosphate.

I report these as examples of our best results under favorable circumstances; though probably no more than what other farmers have done, and many may do if they will make the effort. The question arises, then, Cannot Vermont farmers raise their own wheat—at least, more than they do—and make it profitable? I. W. SANBORN.

Lyndon, Vt., 1869.

MICE IN ORCHARDS.

Last fall I made an inquiry through your valuable paper for some composition that might be applied to young fruit trees, late in the fall, to prevent mice from gnawing the bark during the winter. A number of preventives were proposed, such as have frequently been prescribed by various authors upon fruit growing; all of which have failed to keep off the mice. But as "try, try again" is my motto, I would say to all who feel an interest in fruit growing, let us ascertain, if possible, some remedy, and make it known by sending it to the FARMER. The damage done by mice in Maine the past year can hardly be estimated. Millions of young fruit trees have been killed, young forest trees injured, and grass damaged very much. Unless something happens to diminish their number, I do not see how full crops of grain can be raised. I have a neighbor who has taken much pains within a few years to raise an orchard. He has one containing sixteen hundred nice grafted trees, and he thinks he shall be able to save only about five hundred, the rest are killed. I have three hundred apple trees that have been set within five years, the most of them are spoiled; also, a nursery of about twenty thousand, mostly budded, which are spoiled as far as I learn digging through the snow, which at this time is some five feet deep. J. J. T.

Dixfield, Me., March 29, 1869.

THE NORWAY OAT.

The wonderful original Norway oat first took root but a few miles from my residence, and perhaps it is proper, as I live so near the fountain head of this magnificent production, that I should blend my voice in the grand anthem which celebrates its praises. Be it known then, that this is a farming community, and considerably given to the production of oats. Hence one might have supposed that some sharp-eyed farmer, peering over his neighbors' fences, would have perceived the peerless excellences of the growing Norways, and not have left the discovery to be made by the agents of a distant city establishment. But so blind are farmers that fifty bushels were recently sold to a miller in this section at 75 cents per bushel, but luckily they were discovered by an agent and saved from the base use of horse-feed! Now farmers can have them for seed at a price which proves their high value. If any farmer has already sown his oats, he can forward his money to some other discoverer for an eye or two of an equally valuable potato. Verily agriculture is an ennobling pursuit and a grand field for—humbugs.

South Royalton, Vt., March, 1869. A. B. P.

COWS WITH DRY TEATS.—PRICES AT WHITE RIVER JUNCTION, VT.

Will the cow give as much milk from three teats as from four? I find many persons claim she will. If she will, why not as much from two or even one, as from four?

Much obliged to S. C. Pattee for his information in relation to the management of hen manure, plaster and ashes compost for corn, of March 27. I have four acres that I wish to treat in the same way this season. Just the information I needed. A big rain here since forenoon yesterday. Snow is leaving fast. Hay $15.00 to $18.00; corn $1.20; oats 75 cents; wheat $1.50 and $1.75; potatoes 60; butter 40; cheese 20 and 24; eggs 25 cents per dozen. No maple sugar made yet. Robins, blue birds and sparrows have come among us within a few days. H. N. SAVAGE.

White River Junction, Vt., March 29, 1869.

REMARKS.—It is possible that a cow otherwise healthy may give a little larger proportion of milk from two or three teats than from four, from a wonderful provision of nature to supply deficiencies; as a one-armed man may be more than one-half as powerful as he was with two arms; but try to sell a cow at Brighton with only three teats if you wish to learn the state of public opinion on the subject.

HIRED HELP.

For several years past I have heard more or less complaint about help on the farm. Why is it that there is so much trouble among farmers with their hired help? Is it only because the help is poor? or is the fault partly at least with the employers? I have myself labored for many different employers, and as a hired man may be permitted to say, that I believe the fault is often with the employers. Some farmers work their help late and early, scold

and fret at them most of the time, and find fault about the manner in which they do their work. They never talk over their plans of operations with their men, but seem to take pride in keeping them ignorant of what they are to do until ordered to take hold of some particular job, which they are to go at, as slaves go to their tasks, without thought or responsibility, other than to do as they are bid. This is too much like slavery for me. Even hired men dislike to be treated as machines, or as animals without judgment, skill, or thought of their own. Confidence begets confidence; distrust engenders distrust; or at least such has been my experience. Show your hired man that you have confidence in him; ask his opinion about the work in hand, and so far as is consistent with your plans, throw him on his own resources and allow him to proceed in his own way, and on his own personal responsibility, or give him your reasons in a pleasant and respectful manner for preferring a different course, and he goes at his task with different feelings from those which are excited by orders and directions so minute as to bewilder, and so peremptory as to provoke. A common fault with employers is too much ordering,—one command follows another with such rapidity that the employed hardly knows or cares what he does, so that the last order or command is observed. As a sample of this kind of ordering, I often think of a woman of my acquaintance who ordered her hired girl, who was house-cleaning, to put some soft soap on a varnished door, and before she had hardly finished doing so, ordered her to get the potatoes and wash them for dinner, and then on finding the varnish injured, discharged her for leaving the soap on the door, or, as she expressed it, for not obeying orders!

If you want good help treat them like men, allow them occasionally a day of recreation, and if convenient a team when desired. If they do well, be not afraid to praise them; if they do wrong, tell them so in kind words, and show them the better way. Fretting and scolding does you little good and them much harm generally. J. H. K.

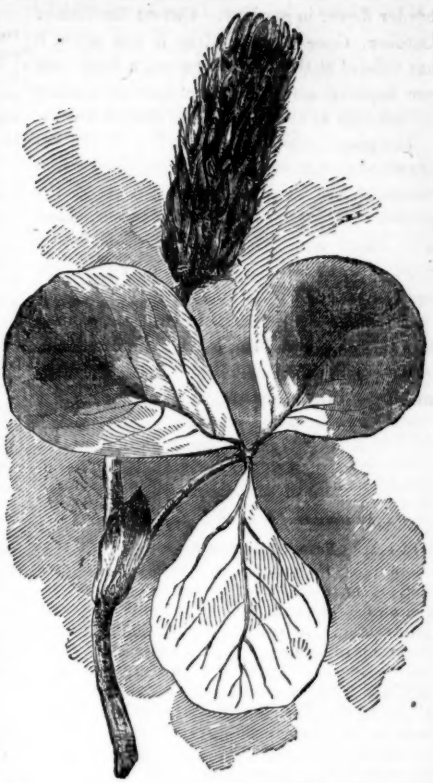
Barre, Vt., March 24, 1869.

RAISE THE CALVES.

Just say to the readers of the FARMER that they had better raise their calves this season than to sell them to be carried off on the cars, just because they are offered a good price for them at one or two weeks old. I raised one year twenty-five calves and had only five cows, and did not lose a calf. I fed them porridge, and found wheat ground without bolting, bran and all, the best material to make it of, as calves will bear more of it than of any other grain, without scouring. I have never known cows to sell so high as they do this spring; we cannot get the best here for less than a hundred dollars each. I think it will pay to raise calves. C. C. KIMBALL.

North Haverhill, N. H., March 27, 1869.

—The idea that the extreme ends, or *spongioles*, of the roots supply all or most of the plant food for the tree is controverted by Mr. Suel Foster, in the *Western Rural*. He says that while the tree is growing all the roots, the stalk, branches and leaves are at work, and he believes that every part of the root coming in contact with the moist soil absorbs moisture, and that in all this moisture there is plant food.



For the New England Farmer.

THE CRIMSON CLOVER.

I remember seeing in your columns, some years since, a cut of a very handsome species of clover. Can you inform me whether it is more desirable than the ordinary kinds, and if so, how it stands our climate, and where I can obtain the seed?

Maine, March 29, 1869. J. M. P.

REMARKS.—This clover,—*Trifolium Incarnatum* of the botanists,—has been grown in the Experimental Garden of the Agricultual Department at Washington, and its seeds have been disseminated therefrom. One of our neighbors in Concord, Mass., sowed a little parcel received by him from Washington, on the edge of a corn field. It grew luxuriantly, and was much liked by some horses and colts that got a taste of it. A basketful was gathered for seed, but none of it germinated, and that left in the field was fed so closely that none of it appeared again. It is said to be an Italian plant, and that it has been grown to considerable extent in Scotland for soiling and hay. It has also been cultivated as a

border flower in gardens. Cut on the 17th of October, three months after it was sown, it has yielded at the rate of two and a half tons per imperial acre. But we have no further information as to its success in this country.

The plant from which we had the above cut drawn and engraved, was selected from a specimen of the Crimson Clover grown in the garden of J. Mason Everett, of Canton, Mass. The artists have succeeded in producing a good representation,—lacking only the color and fragrance of the flower.

If any of our readers have experimented with this clover and can make a more satisfactory reply to the questions of "J. M. P." they are respectfully requested to do so.

For the New England Farmer.

CONCERNING POTATOES.

BY W. WALBRIDGE, ESQ.

"Who shall decide when doctors disagree?"

In spite of the trenchant arguments of Wm. Cobbet, M. P., against the *solanum tuberosum*, it still continues to flourish and to furnish an essential part of the pabulum of our countrymen. In spite of the reasoning of the aforesaid member of parliament, the "disease," the "rust," and the "worm," the potato still lives and comes a welcome guest to all our tables, though it tastes a little more of greenbacks than it used to do.

I have just been reading a little book entitled "one hundred ways to cook potatoes." This is well enough for those who have spoiled their appetites; but for me, I would much rather be told the right way of raising the aforesaid article. "First catch the rabbit," says the old recipe; and this is what I really desire to know how to do. I cannot, with my family, afford to pay thirty-three cents per peck for the esculent in question. I have a little nook of indifferent land and so I think I must attempt to raise it. I am, I confess with shame, but a kind of an amateur soil culturist, nor have I much time or money to expend in testing things experimentally.

Now potatoes we must have, and so I have deliberately come, as I have just now intimated, to the full determination that I will try to grow them. But how? Yesterday I spent entire,—may Heaven forgive me!—and pushed my work almost into the noon of night, consulting the "authorities," and then, with "potato on the brain," retired to bed to dream till break of day of the resolution of the sun, moon, planets, asteroids, fixed stars, comets, and nebulæ into Early Rose potatoes. To-day I have continued the pursuit, and now this evening, March 19, 1869, will sum up the knowledge I have gained for the benefit of amateur potato growers through the world.

Authority No. 1 says: "Plant your potatoes under the manure to ensure a perfect crop." No. 2 tells me to plant them above it. No. 3 advises me to use plaster. No. 4 says, "plaster does no good." No. 5 thinks we should plant quite deep. No. 6 informs me that his do best when planted shallow. No. 7 directs me to use by all means "short manure." No. 8 says "long manure." No. 9 writes: "do not hill them up at all." No. 10 rejoins, "the hills should be quite large." No. 11 affirms that potatoes will not grow in dry land. No. 12 is positive they never can be raised in moist land. No. 13 goes for hills. No. 14 goes for drills. No. 15 recommends planting very early; No. 16 very late. No. 17 maintains that they must be two feet apart; No. 18 that they must be three. No. 19 holds that the potato patch should slope southward, and No. 20 wants a western inclination. No. 21 avers that the potatoes should be cut. No. 22 that they should be planted whole. No. 23 is of the opinion that they should be inserted large end down. No. 24 cries "small end down." No. 25 insists on planting two tubers in a hill, and No. 26 insists on one. No. 27 is quite sure the "Davis seedling" is the best to plant; No. 28 inclines to the "Sebec." No 29 is loud in praise of the Jackson white; No. 30 knows that it is sure to rot. No. 31 speaks highly of the "Early Rose." No. 32 says it is a "humbug." No. 33,—but here I am at the end of two days' labor,—spring advancing, seed time hastening,—my brain reeling. As soon as I get one potato fact fairly fixed in it, a new authority knocks it out. Though I have studied patiently, as a lawyer, after precedents, there now stands, *horresco referens*, unexamined on the shelves before me, many huge tomes of the National and State agricultural reports, treatises on tuber-culture, the bound volumes of horticultural magazines, and several works in French and German on the subject of gardening generally, and I am beginning to fear that my "one hundred ways of cooking the potato" will be of no service to me at all, unless the NEW ENGLAND FARMER can tell me some sensible way of planting my small nook at the southeast corner of my dwelling with the *solanum tuberosum*.

Brightside, March 19, 1869.

REMARKS. — These thirty-three articles, which seem to have confused your brain and unsettled your nerves so seriously, are all harmonious enough to us. What do potatoes care whether you call them tuberosums or murphys? Whether you put them under or over the manure, long or short, provided they have about what they need? Whether planted in hills or drills? Whether put in early or late, so that they have time to grow? Whether the tuber

is small or large, cut or whole, so that a strong germ or eye is used?—But we cannot follow you further. The Italians have a saying that "all roads lead to Rome." Is it not equally true that all these ways of planting lead to potatoes? Instead then of throwing down your books in despair, take up your hoe with courage,—thankful that potatoes will grow on so many kinds of soils, under such a diversity of treatment, and that cultivators are not confined to any procustean mode.

For the New England Farmer.

CARE OF STOCK.---COTSWOLD SHEEP.

The time has come when all kinds of farm stock need the best of care and feed. Stock that has been well fed and sheltered during the winter still needs watch and care. The prevailing opinion of the correspondents of the FARMER seems to be that, to feed meal to milch cows, just before or just after coming in, is likely to produce milk fever. I have known quite a number of cases of milk fever from exposure to rain storms, every one of which proved fatal; but never have known a case produced by high feeding: and I am not much inclined to believe in the doctrine. Although I am aware that feed has much to do in producing milk of suitable quality for the young of all kinds of farm stock, yet I do not believe it produces milk fever.

I have never been able to feed my long-wooled sheep with corn and oats alone without foundering the lambs, and my losses from this cause alone may be counted by scores of dollars. I am now feeding a mixture of one part of corn in the ear, ground with two parts of oats, two of wheat bran, and two of buckwheat bran, with entire success. I have fed my entire flock so far through the winter on clover hay, and they are now in very fine condition. I sold a pair of ewes a few days since which weighed at the depot 185 and 190 pounds.

Clover hay is better adapted to the wants of the sheep than any other kind of hay, but it should be cured in good weather, in the cock, opened to the sun, and made so dry as not to heat in the mow. It should be cut just as it is coming into bloom. Persons intending to invest in raising long wool should make their engagements of sheep in the spring; the stock to be shifted in September or October.

It would be very much to the interest of every producer of wool both fine and coarse, to market his own clip. The expense of sending it, as soon as shorn, to a reliable commission merchant in Boston, is very trifling. These dealers may be supposed at all times to know the market, and be able to get the full market prices. The demand for long-wooled sheep at the West is at present such as to make the breeding of them very remunerative for years to come. Congress having refused to re-establish the Canadian Reciprocity Treaty has acted in accordance with the wishes of the farming community, which secures beyond a doubt the market for long wooled sheep and combing wool for years to come.

The Cotswold sheep are more liable to stretches than other breeds. This, however, very seldom occurs if they have constant access to water and sufficient exercise. Mr. Daniels of Woodstock, Conn., lately gave me a receipt for its cure which I have had occasion to try, and with entire success. A mixture of oil, either castor or sweet oil, mixed in very strong soap suds, a part of it turned down the throat and a part as an injection, has afforded immediate relief.

I have lately been into Dutchess county, N. Y., among the fancy breeders of Cotswolds, some of which weigh over three hundred pounds and sell for four hundred dollars each for bucks, and ewes two hundred each. These are fed to the highest degree and made very beautiful animals, and consequently sell at very high prices. T. L. HART.

West Cornwall, Conn., April 1, 1869.

For the New England Farmer.

HEAVY WOOL COTSWOLD---PRODUCTION OF SEXES.

I have for years been breeding Cotswolds with a view to compactness of fleece and have succeeded so far with a portion of my flock as to have those that are nearly as well protected from storms as the Merinos. Having succeeded in establishing a good degree of compactness, I have occasionally bred my sheep to bucks of the longest wool that I could find, with very favorable results, having in some instances sheared twelve pounds a head from yearlings. At present prices of combing wool the weight of fleece is a matter that should not be lost sight of; besides weight, the protection a compact fleece gives is of importance so far as the comfort and health of the animal is concerned.

The fashion of sheep, like all other fashions, is subject to changes. Twenty-five years ago the fashion was to have clean heads, or those free from any wool in the forehead. The presence of a tuft in the forehead would have excited suspicion of a cross with the Merino; but now the fashion has changed, and a tuft of wool is, by some whose observation does not extend very far back, considered almost the *standard* of purity.

The subject of producing the different sexes in our domestic animals has been under discussion to some extent for a few years past; and it is a subject of much importance to the breeder. That the different sexes can be in all cases produced at the pleasure of the breeder is doubtless not true; but that this

may be secured to a great extent I am very sure. Fifty years since my grandfather said to me, that if it was desirable to have male progeny it could be done by "breeding from old animals." I have observed this for at least fifty years, and have very seldom if ever known it to fail. I once had a pair of buck lambs from a very old sheep; I bred from them one year, and nine out of ten of their lambs were bucks. When obliged to change bucks I am always particular to inquire the age of the sheep which raised the lamb; and I have succeeded in breeding two bucks, whose lambs were nine-tenths ewes, and from all my bucks a large majority of lambs are now ewes. I should prefer a buck bred from a two-year-old ewe, but in no case from one older than three years if it was my wish to have more ewes than bucks. T. L. HART.

West Cornwall, Conn., March 27, 1869.

SMUT IN WHEAT.

In a late number of the *Prairie Farmer* some inquiry was made as to whether lime is a preventive against smut in wheat. My experience tells me that lime of itself would be of little use were it not combined with the solution of salt. I will give my method of preventing smut, which has never failed:—

Save as much chamber-lye as will thoroughly saturate the quantity of wheat you may wish to sow, then for every ten bushels of wheat, add two ounces of arsenic dissolved in rain water, spread the wheat on a level floor, then take a broom and dip it in the mixture, shaking it over the wheat until there is sufficient to wet the whole. Shovel it over once or twice, until you are satisfied that it is all soaked alike, then sift over it a thin coat of fine slaked lime; shovel over until the lime adheres to all the wheat alike. When it is ready for sowing, should there be occasion to wash the wheat in salt brine for the purpose of cleaning it, the dissolved arsenic may be added to a small quantity of chamber-lye and applied as above, after the salt brine has been thoroughly drained. Do not let the pickled wheat remain in the bags over night. I have tried this several times and have found it to accomplish the desired effect in all cases.—*M. L. Curtis, in Prairie Farmer.*

CORN GROWN FOR FODDER.

A correspondent of the *Country Gentleman* at Prospect Hill, Va., writes as follows:—On June 25th I planted just one-third of an acre, in drills three feet apart. I took my Wethersfield drill, put in the largest seed, and went over each row twice, and then covered with a cultivator. It grew finely. I cultivated it twice with an A harrow, set so as to take only to the middle between the rows, and ran it up and down each row. By so doing I could run very close to the young corn, and kill the weeds and not injure or cover the young plants. I cut it with a briar scythe, and one man could cut as fast as four could bind. This was Sept. 28th. Put it in small stacks, or rather shocks, and let it stand. Commenced feeding it to my horses and mules (5) Nov. 1st, and it lasted them until the 3d of December, and is by far the best fodder I have. I shall put in several acres next year, for it not only yields a very profitable crop for the farm (as the ground was poor,) but it "kills the weeds" most effectually, which is a great point here. I believe that I shall make it a paying crop in money. Fodder is always salable at $10 per stack (ton.) Now I can get four tons on land that will not produce more than ten bushels of corn per acre—giving me $40 per acre, at a much less cost than corn at $10. I shall therefore have $40 for each acre, and allowing $10 for seed, cultivating, gathering, &c., I shall have $30 per acre to buy the best fertilizers that I can get; for that is the only proper mode of using *that* money, and so I can manure my farm without cost, kill the weeds and improve the land at the same time. C. R. M.

A PERCHERON COLT.

Mr. B. F. Ricker, of Brighton, Mass., has sold to T. G. Hadley, Esq., of Galesburg, Ill., a colt two years and nine months old which weighed, with a head-stall and halter, 1510 pounds. The colt was sired by "Conqueror," one of the Percheron horses imported from France in 1863 by the Massachusetts Society for the Promotion of Agriculture. His dam is a well bred mare from Toronto, Can., weighing about 1400 pounds, and is used in one of the noble teams employed about the Cattle Fair at Brighton. Mr. Ricker bargained his colt at *one dollar per pound*, delivered at Chicago; but the agreement was compromised by the payment of $1400 on the delivery at Brighton. Mr. Hadley has also engaged a yearling colt from the same mare, by Green's Hamiltonian, as well as another colt which is expected this season. We also understand that "Conqueror" is now owned in Skowhegan, Maine, and that he has proved all and more than was expected by his importers, in crossing on our native stock. The colts are all powerful animals, handsome, easily handled and excellent roadsters. At the West where heavy teams are wanted to operate agricultural machinery, a larger breed of horses is much needed, and it is believed that an infusion of the Percheron blood will prove particularly beneficial.

PLOUGHS AND PLOUGHING.

SOME time in February last we noticed at some length a report of a trial of ploughs, held at Utica, by the New York State Agricultural Society, in September, 1867. What we then said was mostly confined to a brief *history of the plough*,—showing how gradually improvements had been made, and by whom. At present we shall speak of some of the objects to be accomplished by ploughing, and what kind of an implement is best adapted to secure these objects.

Before entering, however, upon the subject matter in hand, we wish to say that the *Mark Lane Express*, published in London, and probably the leading agricultural journal in Europe, speaks in very high terms of Mr. GOULD'S report. It says, "The report of English judges on the horse-plough trials, instituted by the Royal Agricultural Society of England, at Leicester, last year, extends over six pages of the Society's last number. The table of dynamometrical results of that report is simply incomprehensible, without a guide. Compared to that under notice (Mr. Gould's) the English report is meagre in the extreme. We invite the editor to study the New York State report; it is clear from it that the Americans *carry out their trials of agricultural implements and machinery thoroughly*, and take great pains to render the history of them interesting and instructive." The *Express* "regrets that no English ploughs competed at these trials."

We have often urged upon the reader the importance of bringing the soil into a healthy, active, mechanical condition. This is certainly next in importance to manuring the soil, if it does not stand equal to it. In a very able review of the report, Mr. Geddes says, two specimens of soil, precisely alike, as determined by chemical analysis, may be and often are quite unlike in their power to produce crops. The committee discuss this subject fully and ably, and from this discussion derive the conclusion that one of the leading objects of ploughing clay or any tenacious soils is to reduce the size of the particles and to pulverize and mix all of them in the most perfect manner. A ton of barn-yard manure, containing 17.4 pound of ammonia, may be spread over a given surface of ground and abundantly supply the plants growing there with ammonia. A ton of coal containing 47.6 pounds of ammonia, spread over an equal surface, will give the growing plants *none*.

"The important question for the farmer to ask is, not so much how much plant nutriment is contained in the soil, but how much is there which is in such a *physical and chemical condition as to be available*" for the support of the growing plant.

Soils that have the greatest amount of capillary porosity, the committee say, will condense the greatest amount of manurial substances on their internal surfaces; will retain them longest, and will give them out most readily to the rootlets of the growing plant. A mass of adhesive clay will absorb but a very slight amount of available manure; but if this same mass is rendered friable by mechanical processes, its power of absorption is amazingly increased. By pulverization the air is admitted to the soil, which becomes the agent of converting the carbon existing in it to carbonic acid, which in its turn renders many substances which were previously useless, very efficient in promoting the growth of plants.

It is clear that the *plough* is the implement to bring the soil into the condition described above; and that is the best plough which will the most completely do this work — other things being equal. The use of the spade for pulverizing the soil is out of the question with us, where wages are so high. The harrow will not do it; that implement *levels*, but does not disintegrate. Use it long enough and it will compact the mellow soil of a field into a surface as hard as that of the highway. The plough is the only effectual and economical tool yet devised to work the soil into its finest particles. To bring the plough into the proper shape to accomplish this, and at the

same time have it set squarely on its sole, run even with the power impelling it, and of light draft, has cost an immense amount of thought, labor, and a very large expenditure of money. The mould-board must have the form of the screw, in a considerable degree, in order to twist the furrow-slice into millions of fine particles as it rolls it over and leaves it upside down. The Holbrook ploughs did this so thoroughly that when the furrow was eight or ten inches deep, the most perfect seed-bed was left, without the aid of any other too upon it.

Deep Ploughing.

The next great point aimed at is deep ploughing. The Committee say: "The distance to which the roots of a plant will extend when there is no physical obstruction to their progress through the soil, is far greater than is usually suppposed by those who have not actually witnessed their extension. We have seen the roots of Indian corn extending *seven feet downward;* the roots of lucerne will penetrate fifteen feet; onions will run downward *three* feet where the physical condition of the soil favors the extension of their range. It is obvious that as the nutritive matters in the soil cannot travel to the root, the latter must therefore go to the former: and the further the root extends the greater the amount of food which the plant can obtain, and the greater must be its growth. The roots of plants always develop themselves in the direction of least resistance."

A high degree of pulverization, however, is not the only point to be gained; among others, one is, that a good plough will perfectly turn under all weeds and grass on the surface, where they will rot and be converted into food for the plants we are cultivating.

Several other points were also examined with the greatest care by the committee, and the following are all specially set forth in the report: To promote the germination of seeds. To get clear of stagnant water from the surface. To prevent the refrigeration of the soil by evaporation. To secure the return of the water evaporated by the plant in the form of dew. To destroy the weeds in the soil.

In investigating these, and all other points under consideration, the committee were governed by a set of rules which were carefully drawn up, and which they rigidly observed. A most ingenious and perfectly-working instrument to test the power required to draw the ploughs was constructed by Mr. HENRY WATERMAN, of Hudson, the consulting engineer of the society. Mr. Waterman's dynamometer is in itself a great triumph of inventive genius, and is the only really satisfactory instrument to measure the power expended yet made. The most important points were fully examined, viz:—

1. Pulverizing power.
2. Non-liability to choke in stubble.
3. Lightness of draft, considered in connection with pulverizing power.
4. Ease of holding.
5. Durability.
6. Cheapness.
7. Excellence of mechanical work.
8. Excellence of material.
9. Thorough inversion and burial of weeds.
10. Even distribution of wear.
11. Regularity or trueness of turning and carrying the furrow or sod.

What the society most desired in these tests was, to bring out the best plough for *deep* cultivation, and its large gold medal was offered to the maker of the best plough to cut a furrow one foot deep, that three horses could properly handle. Mr. Webster's plough, which we spoke of in the February article, cut a furrow a foot deep and the slice two feet wide, and required from four to six yoke of oxen. This was not what the society wanted; and it left the question of width to the competitors, except that it must not be less than five inches deep, and three horses must be able to draw it in actual use.

Two ploughs were entered for this premium, both of them, the committee say, "doing the work which was called for." One was from Collins & Co., Hartford, Conn., and the other from F. F. Holbrook, Boston. The Collins plough was of steel, weight 95 pounds. The Holbrook of cast-iron, weight 139 pounds. Both cut furrows 12 inches wide and 12 deep. On ploughing the first furrow, the power required to draw the Collins' plough one yard, was 665 pounds, and the Holbrook 632. On the second furrow, the Collins 654 pounds, and the Holbrook 632. Going through all the points, it was decided that the Holbrook was best in eight points, and the Collins in two, and in one they were equal. Thus Holbrook was awarded the great medal, and the credit of having produced a plough that three horses could draw through land that the committee say was extremely bad to plough, and turn a furrow 12 inches deep and 12 inches wide.

We cannot enter here into any description of the forms of ploughs that will execute such

work; all we can do is to mention them so that those interested may find them and examine and test for themselves.

It will be noticed that the two great points with the society were depth and fineness. In a climate like ours, subject to such droughts as have several times occurred within the last ten years, the matter of *deep* ploughing becomes one of great importance to the farmer. It is well illustrated in some observations of Mr. Dalton, of England. He proved that

"A cubic foot of earth may contain seven inches of water in depth, and that it may part with one-half of this water and not be too dry for supporting vegetation. He used a cylindrical vessel, 10 inches in diameter, three feet deep, filled with gravel, sand, and soil, having a discharge pipe at the bottom, by which to measure the quantity of water that ran off, and which gave perfect drainage, —the top of the soil being covered with grass, the whole buried so that the top was even with the ground, shows that earth that is moderately moist will take up three inches of water without carrying it beyond the point of saturation. This amount had in the preceding dry month been taken up by the plants and evaporated, and, without making the soil too dry, had so drawn upon it that it could imbibe three inches which fell in four days. Land ploughed only 6 inches deep holds only 1½ inches of water, subject to the use of vegetation, if no account is made of water rising up through the hard earth beneath. Ten days of dry weather in June, July or August, will tell injuriously on plants that have only six inches of earth beneath them from which they can draw moisture; but give plants three feet (as in Mr. Dalton's experiment) of mellow earth, and there would be 9 inches in depth of water for the use of these plants—sufficient to mature any crop our farmers raise, *without one additional shower after the first day of June!*

"Mellow earth holds water, and the larger or deeper the reservoir, the better guaranty against the injurious effects of dry weather?"

BEET SUGAR.

The Department Report for 1867 contains an exhaustive report by the chemist of the Agricultural Department upon the subject of beet sugar. This subject is one of great importance to the farming and commercial interests of this country. About one-third of the sugar now used in Europe is made from beets, and the manufacture is rapidly increasing. In 1865–6 about thirteen millions hundred weight of sugar were made from beets, principally in France and Germany.

Beets for sugar are cultivated as one in a rotation of crops, and an important fact in connection with their culture is that the cake remaining after the juice is pressed out is very valuable as food for stock. It is both nutritious and agreeable to cattle, and they thrive upon it. In those sections in which sugar is made, there has been great improvement in the cultivation, more stock being kept and the quantity of manure being greatly increased.

Factories are established in various places by capitalists, and the beets are furnished by the small farmers in their vicinity, in addition to the large quantities raised upon the farms belonging to the factories.

White sugars, of the very best description, are made at these establishments. It is stated that beets in the northern parts of France and Belgium yield a larger per cent. of sugar than they do in the South of France. This seems to indicate that a very warm climate is not required for successful sugar making from beets. A good supply of rain during the growing season, especially in August and September is required, and something depends upon the varieties used.

There seems no good reason why this branch of industry cannot be undertaken in this country. The climate of a majority of the States would seem to be suited to their growth, and a ready market would be found at home for any quantity produced. Unlike cane sugar, cotton, tobacco, hops, and some other crops, beets do not exhaust the soil without leaving anything to be returned to it. The tops and cake will feed a large amount of stock, and thus increase the fertility of the soil. In Europe much of the labor is done by women, and in this country skilled laborers would not be required to any great extent in the cultivation. One or more establishments have been already commenced in Illinois, where German laborers are employed.

The making of sugar from Sorghum, in this country, has thus far been a failure, although considerable quantities of good syrup or molasses are made.

It is a little more than fifty years since Napoleon started the manufacture of beet sugar. During this period much has been done by chemical investigation and mechanical contrivance, to improve the processes of manufacture.

Having the advantage of European experience and skill, we may start in the business under favorable circumstances.

GRAFTING WAX.—J. J. Thomas recommends one pint linseed oil, six pounds rosin, one pound beeswax, melted together, to be applied warm with a brush, or to be worked with wet hands into a mass and drawn out into ribbons.

From the Hartford Advocate.

THE BLACKSMITH'S PRETTY DAUGHTER.

Why do the horses come always at noon
To be shod at the blacksmith's shop?
At noon time, when the sun is still,
When the blacksmith is forced against his will
To rest, and his work to stop?

Just at noon, from his house on the hill,
A girl with a pail comes thence;
Smiles come on her lips, on her cheeks a glow,
As she sees the horses tied in a row,
Along by the blacksmith's fence.

Oh, but the blacksmith's daughter is fair!
And the horses all look at each other,
As much as to say, "Now isn't she sweet?
We know why our masters say that our feet
Are giving them so much bother."

The bell rings one, and the blacksmith cries,
'Now, then, for work right away!"
But most of them say that its growing late,
And they really think they'd better wait,
And come on some other day.

Oh, blacksmith's daughter, your mother, too,
Was fair when your father sought her!
You're going in the way that she has trod,
You'll be a wife ere those horses are shod—
Oh, blacksmith's pretty daughter!

NEW PUBLICAITONS.

ON SEATS AND SADDLES, Bits and Bitting, and the Prevention and Cure of Restiveness in Horses. By Francis Dwyer, Major of Hussars in the Imperial Austrian Service. Philadelphia: J. B. Lippincott & Co. 1869. Extra cloth, $2. 255 pages.

We are glad to see a book on the subjects of seats, saddles and bits. The "Society for the Prevention of Cruelty to Animals" can scarcely find a more appropriate field for their beneficent action, than that occupied by this volume. The bits that are put into the tender mouth of the horse, the saddles that are put on his sensitive back, and the position and action of the rider, are subjects of sufficient importance to claim the attention and study of the horseman. Though written by a military man, the principles discussed in the text and illustrated by the numerous engravings in this volume, are applicable to the horse on the farm or on the road. The author explains and illustrates the mechanical principles involved not only in the construction of saddles and bits, but also in the frame-work of the horse, or "the machine," as it is termed in the frontispiece. As a specimen of the writer's style, we copy the following from his remarks on bitting:—

"How many horses, especially young ones, are made restive, and become plungers, bolters, or rearers through the intolerable pain occasioned by bits that are wholly unsuited to their mouths, and sometimes fitter for a rhinoceros than so sensitive and delicate an animal as the horse. Many a curb, stringhalt, and spavin are originated by the use, or rather abuse, of bits whose lever power is so excessive that it is impossible to regulate their action, not to mention the very numerous instances in which bits are placed in such a position in the horse's mouth as to act on the animal's head in exactly the opposite direction to that intended by the rider, and thus, in conjunction with the misplaced burden of the rider, assist in throwing down the bearer."

On another page will be found a copy of one of the illustrations of the work.

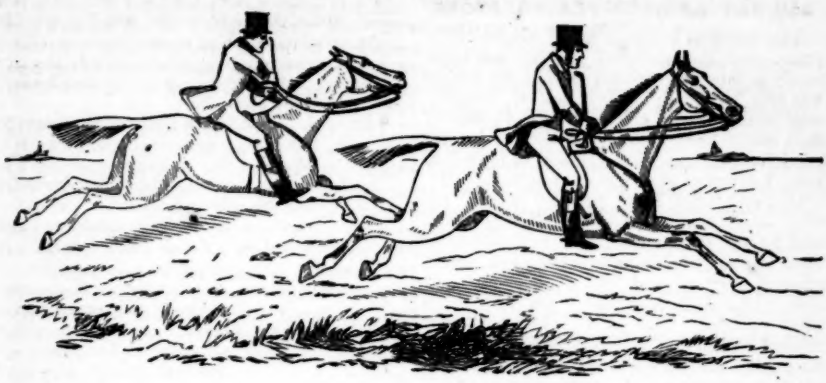
THE NINTH ANNUAL REPORT of the Board of Agriculture of the Province of New Brunswick. Fredericksон, 1868.

This is a pamphlet of 152 large pages, giving a list of the members of the Board, with an account of their transactions during the year 1868. We are not a little surprised to learn that this Province does not produce all the food required by its population, and that the breadstuffs imported amounted to $1,265,175 in 1861. One reason assigned for this deficiency is that many farmers divide their attention between farming and lumbering; pursuits that do not harmonize. The latter being speculative, often proves precarious. There were fourteen agricultural societies in the Province entitled to grants in 1868. Oats, buckwheat, and potatoes are produced more largely than wheat, barley or corn, —the latter crop being less cultivated than formerly.

THE AMERICAN FARMER, Baltimore, Md., one of our most valuable monthly exchanges, celebrated the fiftieth anniversary of its establishment, on the second day of the present month, by a review of the contents of the first number, printed April 2, 1819. The writings of Wm. Cobbett, Chancellor Livingstone, and Thomas Jefferson, appear to have occupied a large portion of its columns. A detailed statement is given by Mr. Barney, of Port Penn, of his "big oxen." One of them called "Columbus," weighed alive 2962, the other "Delaware," 2688 pounds. Prime pieces were sold at fifty cents per pound. There are several notices of fat hogs copied from a Boston paper. One merchant had purchased 60,000 pounds of very nice pork raised in Vermont and New Hampshire. A hog killed in Easton, Mass., by Cyrus Lathrop, weighed 742 pounds, at one year and eight months old.

The *American Farmer* is three years older than the NEW ENGLAND FARMER, and was the first agricultural paper printed in America. There are now more agricultural papers published in the country than the *American Farmer* is years old.

—A correspondent of the *Germantown Telegraph* wishes that he could make the truth vivid to every keeper of cows, that the care of them is something that requires knowledge and painstaking in details. Cows must not be neglected or deprived of sufficient food. Good shelter and abundance of food they must have if we would make them profitable. Evenness of local temperature is a necessity. If the weather is cold or wet without doors, they should be made warm or dry within the stable. If the sun shines too hot, they should have the privilege of shade. When a cow becomes *uncomfortable* the flow of her milk is restrained. A cow will return to you just in proportion as you confer upon her.



THE ART OF RIDING.

Don't be alarmed; this is neither an American "agricultural horse trot," nor an English "steeple-chase." Its purpose is to show how men ride, rather than how horses go. Riding is an art, and must be acquired, like other arts, by study and practice. Occasionally, however, a man seems to be a born rider, and takes to the saddle naturally as some do to music, mechanics or painting. But most of us are not thus gifted, and skill in horsemanship as well as in other professions is acquired by hard study and long continued practice. Our cut is copied from a new work on *Seats and Saddles, Bits and Bitting*, noticed on another page, and is designed to illustrate a bad and good seat, and to enforce the caution given to the rider "not to stick out his rump as if it did not belong to him." We can attempt no synopsis of the principles discussed or the directions given in this volume. We must, however, give the reply of Major Dwyer to the question, "What is a man to sit on? Well, he has two bones in his seat, which we venture, in imitation of German phraseology, to call his 'sitting-bones,' and a third in rear —that on which long ago Lord Monboddo built his celebrated theory, since improved on by Darwin, of the human race having been originally developed from monkeys; this third bone completes, with the other two, a triangular basis for the human seat on horse-back, and, be it said, a much more efficient one than for the theory in question. If the angle of the hip-bone comes to be perpendicular over the sitting-bone at the same side, the rider's weight will rest on this triangular basis, which, being the largest available for the purpose, affords the greatest degree of stability to the seat. If, however, the perpendicular from the hip-bone falls *to the rear* of the sitting-bone, the leg and thigh are immediately thrown forward to the horse's shoulder, the rider's back is converted into the segment of a circle, and his weight sways about unsteadily on the Monboddo corner of the triangle. Finally, if the aforesaid perpendicular fall *in front* of the sitting-bone, the fork-seat is achieved, the thighs come back toward the horse's tail, the rider's body is carried forward by every movement of the animal, because it rests only on two points instead of three, and this may be styled the 'muff school of equestrianism.'"

AGRICULTURE IN CHINA.—The Chinamen, who walk over bridges built two thousand years ago, who cultivated the cotton plant centuries before this country was heard of, who fed the silk worm before King Solomon built his throne, have fifty thousand square miles around Shanghai which are called the Garden of China, and which have been tilled by countless generations, and are as productive now as ever.

The area is as large as New York and Pennsylvania combined, and is all meadow land raised but a few feet above the river; lakes, rivers, canals—a complete network of water communication; the land under the highest tilth; three crops a year harvested; population so dense that wherever you look, you see men and women in blue pants and blouse, so numerous that you fancy some fair or muster is coming off, and all hands have turned out for a holiday.—*Western Farmer.*

For the New England Farmer.

AMOUNT OF SEED FOR POTATOES.

This question has been under discussion for years, and the views of growers are apparently as much at variance as when the subject was first broached. When doctors disagree, who shall decide, unless it be the patients? As I could learn nothing satisfactory to my mind from the expressed opinions of my neighbors, I determined to test the matter myself.

One says plant large potatoes whole, another large ones cut, another small ones whole, and so on to the end; but ask any one of them why say you so, and they answer, oh, I planted mine so and had a good crop, or I always plant such ones and I generally have good potatoes. Now it must be a very poor method indeed that will not sometimes produce good results, whether applied to planting potatoes, sowing wheat, or exterminating Canada thistles. But what we want to know is the best method of doing these things, and one that will produce good results uniformly.

The past season I have experimented a little with potatoes in order to ascertain what kind of seed and the quantity to use. The ground was a slaty loam and had been mowed for eighteen years, and was broken up and planted to corn last year, without manure, giving thirty-eight bushels to the acre. Measured off one acre, twenty rods long and eight wide. The land was marked both ways, five rows to the rod, and planted to potatoes, without manure. They were planted April 23, and covered two inches deep. The first eight rows lengthwise of the piece were planted with one piece to the hill, two eyes on a piece. The next eight rows, with two pieces, making four eyes to the hill. The third eight rows three pieces, or six eyes. The fourth, one small potato whole. The fifth, one large potato whole. The first rows had two stalks to the hill in about three-fourths of the hills, the rest only one. The stalks were large and much branched near the ground, but did not cover the ground as much as either of the others. Number two had three to four stalks to the hill, and were nearly as large as those in number one. Number three had four to six stalks to the hill, but they were more slender than either of the former. Number four had from four to ten stalks to the hill, which were very slender, especially where there were more than five stalks in a hill. Number five had from five to eight stalks to the hill, and were more stocky than number four. Dug the ninth, tenth and twelfth of October, and accurately weighed, with the following results:—

	Lbs. large potatoes.	Bu. of 60 lbs.	Lbs. small	Bushels.	Total wgt. large & sm.
No. 1 . .	2460	41	90	1½	2550
No. 2 . .	2880	48	75	1¼	2955
No. 3 . .	2280	38	165	2¾	2445
No. 4 . .	2055	34½	287	4 47-60	2342
No. 5 . .	2230	37 1-6	180	3	2410
Totaal,	11,905	198 5-12	797	13 17-60	12,702

Omitting fractions, the yield per acre for each plat would be respectively 212, 246, 203, 195, and 200 bushels. It will be seen that four eyes to the hill give the most potatoes, it being thirty-four bushels more to the acre than the next highest, and fifty-one bushels more than the least.

From this experiment I infer that four stalks are as many as ought to be left in a hill. Small potatoes usually have as many eyes as large ones, and consequently when used for seed an excess is often planted.

The largest potatoes were on No. 1 and No. 2; Nos. 3 and 5 were about alike; in No. 4 they were considerably the smallest.

In plat No. 1, I observed that where only one eye grew, the yield was about three-fourths as much as where two came. This suggests another question, viz.: does the amount of potato left with the eye affect the produce? Here is a chance for further experiment, by taking just the eye alone; also the eye with a small piece of the flesh and so increase it until we get the whole potato, with all but one of the eyes taken out,—all to be planted separately and the produce noted.

That four stalks to the hill are better than more, I am satisfied, from the result of another experiment made with a few hills on another piece, where I planted 200 hills, one-half with large and the rest with small potatoes, one in a hill, and whole. One-fourth of each kind was thinned at the first hoe ng, to two stalks in the hill; one-fourth to four stalks; one-fourth to six, and the remainder left as they came up. The difference in yield between the large and small seed was but little, but the difference between the hills left to themselves and those thinned out was as great as in the experiment above detailed.

Thus I conclude that it makes but little difference whether we plant just what eyes we wish to stand, or plant more and thin them out, only it is a waste of seed, and like the beet and carrot bed, never get thinned out. I intend to repeat the experiment next season; but my manner of planting the main crop can be inferred from the above. J.

Oak Hill, N. Y., April, 1869.

For the New England Farmer.

FANCY STOCK.

Our experience seems to prove that no thoroughbred animal can be so profitable for farming purposes, as half or quarter bloods; or rather a cross of different breeds is better than any full-blood.

For instance, in sheep, a cross between Merinos and Cotswolds will give good sized mutton and a good superfine quality of wool, much better for practical use in New England than either the full-blooded Merino or Cotswold.

Again, in horses, each different breed has various good points, but are lacking in other

desirable ones. A good horse for a farmer should possess all the good points.

So in cattle. Probably it would be impossible to find a single animal of any particular breed, which would show all the good points requisite for use on our New England farms. One of the best milch cows the writer ever knew was a cross of Devon with Native. Another superior one was half Dutch, part Ayrshire and Native. Most people acquainted with the different breeds are aware that the Devons are not great milkers, though the oxen are handsome and good workers, but not so good for beef as the Durhams, while the Durhams are not noted as great milkers. The Dutch are good milkers, but are not so good for fattening, as they do not take on flesh so readily as a more compact breed. And no experienced feeder would think of taking the Jersey's for stall-feeding.

People are often disappointed in new or fancy breeds of cattle or sheep, for the reason that such fancy breeds have been kept in a fancy manner, and often their superiority consists mainly in their having been reared and kept upon the best the land affords, and they usually fall away and dwindle to insignificance when treated as native breeds have been. Many farmers in Vermont and New Hampshire have been sadly disappointed with fancy Merino sheep which have cost them fancy prices. In many cases these sheep have dwindled and died when treated as the Native sheep are usually.

Having examined different herds of superior Durham cattle, owned by noted breeders in Vermont and Canada, I have invariably found upon inquiry that large quantities of grain were fed to such stock the year round; and I am satisfied that in no instance was the owner repaid for his outlay by any cash value received; although the satisfaction of seeing the growth and improvement of such fine animals might repay the man of wealth for his care and expense; and occasionally a slight return is received by the sale of an animal at a fancy price.

In some cases, doubtless, the breeders of fancy cattle may confer a benefit to the country, but usually the parties purchasing such cattle for practical use lose by the operation, for the reason that with common feed they are sure to depreciate. We are aware that it would well pay most farmers to take better care of their stock, and feed better than they do at present; but until they conclude to take fancy care of their animals, they had better not purchase fancy stock of any kind.

CARMOS.

Reading, Mass., Feb. 24, 1869.

REMARKS.—As Mr. J. A. Harwood, of Littleton, Mass., said in his remarks at the Milk Producers' Meeting, at Nashua, we need the thoroughbreds to get the crosses. The remarks of our correspondent as to the superiority of wool for "practical use" from a cross of the Merinos and Cotswolds may be correct so far as certain uses are concerned, and incorrect as respects other uses. Pure Cotswold or Leicester wool we understand possesses certain qualities,—length and gloss,—which are necessary to the production of certain styles of goods; and that these qualities are lost by a cross with the Merinos. Hence if this wool is not grown in the United States it must be obtained from foreign countries. It is generally believed that the wool growers of this country can supply the various grades of wool required by our manufacturers, and in fact they have entered into an agreement with them to do so. It is therefore our duty as well as our interest to ascertain what kinds of wool is required by these manufacturers, as well as to determine which is best for "practical use in New England."

For the New England Farmer.

DISEASE IN SHEEP.

In the FARMER of March 27, friend Nichols of Plymouth, N. H., writes for information about a disease in his flock of sheep and the fatality that attends it. If it is a disease, it must be contagious, for we hear from all quarters, not only in New England, but in the Western States, of unusual mortality among sheep. In this vicinity some farmers have lost half their flocks, and appearances indicate that many more must follow soon.

It has been like rowing against the tide to keep sheep during the past three years; but just as the market prospects begin the brighten up a little, our flocks are dying by thousands. Every farmer is interested in finding a remedy and applying it, to stay this wholesale destruction of property. But in coming to a correct diagnosis of disease, whether in plants, animals or persons, a careful investigation of matters and facts prior to its fatal termination is necessary.

During the war, when wool was high, and sheep raising paid enormous profits, the health and comfort of most all flocks were carefully looked after, and the losses were few by sickness. Then the sheep had the best of hay, a feed of corn once a day, all the roots that were raised, besides oats, shorts, beans, oil meal, &c. What a contrast with their present neglect! I have heard a number of sheep-owners, within two years, say give the sheep meadow hay, and let them die if they will, for there is no profit in them. Many have got entirely discouraged and sold out, losing money by the operation. Some of these men would go half a mile "to kick a sheep."

Perhaps there has been something more than mere neglect to cause sheep to do so badly the past season. Last summer there was an unusual amount of rain, and in July a rust struck the grass, destroying nearly half the nutriment of the hay that was not cut until very late in the season. If enough grain to make up this deficiency in the nutriment of hay had been given, possibly sheep would have done as well as common; but their stomachs may not have been capable of receiving enough of this inferior hay and digesting it, to sustain life and keep the functions of the body in healthy action.

About ten years ago I lost thirty-five sheep out of two hundred and fifty, most of them dying after going out to grass. I was entirely ignorant of the cause, until informed by Mr. Henry Couch, of Salisbury, that it must be the "rot," in which the blood turns into water. For a cure he recommended ashes mixed with salt and sulphur. I gave only five pailfuls, one part sulphur, three of salt, and four of ashes, well mixed. I think this cured them, for none died after using this mixture ten days. The affected sheep did not appear to suffer much, were not sick more than one day, and were mostly in fair flesh. I cut the throat of one, before dying, and got about half a pint of light watery blood, that would not coagulate on cooling. On cutting into the throat immediately after death, no *blood* could be found, only a frothy, slippery substance.

If Mr. Nichols' sheep are in fair flesh, I should think from his description it was the rot that troubled his flocks. It is the best course to keep sheep well,—that is, gaining in flesh, from the time they come to the barn until they go to the pasture again. Give them sulphur enough to kill all the ticks and keep off disease. Those persons that do so, reap twice the profit, and have a conscience devoid of offence. G. F. QUIMBY.

Warner, N. H., April, 1869.

For the New England Farmer.

YOLK IN MERINO WOOL.

Previous to 1861 and 1862, comparatively little complaint was heard from manufacturers or dealers in regard to the yolkiness of the Merino wool. During the years immediately following, there was great speculation and excitement in relation to wool, and complaints were heard from dealers in regard to the sudden and alarming increase of yolk in the fleeces of Merino sheep, and the prejudice thus excited against this valuable breed still operates to a considerable extent.

It is the object of this paper to inquire whether this sudden increase was artificial or natural, and whether its injurious effects ought still to continue. During the excitement caused by the high prices for wool and sheep, which prevailed during the war, many breeders and speculators resorted to all known expedients to temporarily increase the weight of their fleeces, well knowing that a monster fleece would help sell the animal for a monster price.

In order, then, to obtain a thirty-pound fleece, it was necessary that fifty, sixty or even seventy-five per cent. of it should be yolk, or as some term it, "grease." In order to preserve and increase this yolk, the sheep were housed from rain summer and winter; for water is as fatal to "grease" as it is to "salt and sugar," and the sheep were also fed the year round with the richest of grain. Some jockeys, also, fearing that even with these appliances they should not beat all creation, resorted to outside applications in order to increase the "contraband hue," and drew upon the neighboring merchants for the oil which their fleeces lacked of the desired weights. Sheep of this character, being widely disseminated, became in time to be taken as types of the improved Merino. Their fleeces, also, in due time fell into the hands of the manufacturers, and shrinking, as they naturally would, vastly more than Merino wool was ever known to shrink before, created the prejudice against Merino sheep, which in many localities still exists.

The great decrease in price of wool and sheep has removed all temptation for summer housing or pampering, because it cannot be made to pay, and the Merino flocks of the country to-day, except in rare instances, are bleached by the storms of summer, and are simply well kept in the winter. The fleeces of such flocks are no more oily than they were ten years ago, while the staple has been greatly improved in evenness and fineness as well as in amount of pure wool.

From this plain statement of what every intelligent wool-grower knows to be true, it will be seen that the apparent increase of oily wool during the war was a stimulated and forced product, and not a natural secretion. Consequently the Merino flocks of the country are really more valuable than ever before, for the reason that they yield more wool of a better and more uniform quality than any sheep have ever done before them. E. R. S.

Windsor, Vt., April, 1869.

CULTURE OF THE QUINCE.

In a recent number of the *Country Gentleman*, Mr. N. Ohmer, of Dayton, Ohio, says that about ten years ago he began to turn his attention to the cultivation of fruit, and the then neglected quince he made a specialty, planting three-quarters of an acre at ten feet apart each way. The fourth year after planting he sold quinces enough to pay for the trees, and each year since, with but one failure, he has had good crops increasing in quantity and quality.

At the last Ohio State Fair his quinces took all the premiums for this fruit. The Orange

quince is the best that ripens with him. He values Ray's Mammoth on account of its large size, handsome form, beautiful color and good quality. With him the pear quince grows to a good size and ripens after the orange, prolonging the season. He does not recommend the planting of pear quinces extensively.

Mr. Ohmer says that he planted the trees in his first orchard ten feet apart, each way, but the branches have now grown into each other so that it is almost impossible to get through the orchard. He has since practiced and unhesitatingly recommends fifteen feet as near enough to plant the quinces on good soil. The tree is quite handsome when properly pruned by cutting out all interfering limbs within the tree and cutting back such as grow out of proportion. He spades the ground every spring and scatters a peck of coal ashes around each tree. He finds common salt the best manure on the quince and applies about one quart to the ground under each tree after the soil has been spaded and another quart when the quinces are about half grown. Last year he sold three hundred bushels of quinces from his orchard of three quarters of an acre, at $2 50 to $3.00 per bushel. This fact is worth a thousand arguments in favor of planting and cultivating the quince.

NORFOLK COUNTY, MASS.

At the annual meeting of the Agricultural Society of this county, at Dedham, March 31, Hon. Marshall P. Wilder, who has been president of the association for twenty years, and under whose efficient administration the society has been highly prosperous, resigned his office. In his valedictory address, he alludes in fitting terms to many of his associates who have "finished their course." The Norfolk, he informs us, was the first society in the State "to purchase lands, erect a hall and take fees for admission to the gates. It was the first to admit ladies to the rights of membership and to the participation in the festivities of the annual feast. From the Norfolk Society emanated the idea of establishing the Massachusetts Board of Agriculture, now a department of the government, and now working harmoniously with all the other societies. Here, too, originated the first general efforts in behalf of the cause of agricultural education, which have culminated in the establishment of that popular and promising institution, the Massachusetts Agricultural College; and here, also, if I might be permitted to make the record, was conceived the project of the United States Agricultural Society, which, until the late conflict, was exerting a happy influence on the agricultural and political interests of the country."

Resolutions of thanks for his services, and expressive of the hope that his health may be perfectly restored, and his life of usefulness prolonged for the benefit of those public institutions, and those private relations with which he is connected, were adopted by the Society. He was also constituted the first honorary President of the Norfolk Agricultural Society.

The following is the list of officers for 1869:—

President—Hon. John S Eldredge of Canton.
Honorary President—Hon. Marshall P. Wilder of Dorchester
Vice Presidents—Hon. Amos A. Lawrence of Brooklyn; Hon. Otis Cary of Foxboro'; Messrs. S W. Richardson of Franklin; E. Tucker of Milton; Henry Grew of Hyde Park; E. Stone of Dedham.
Secretary—H. O. Hildreth of Dedham.
Treasurer—C. C. Churchill of Dedham, and the usual finance and executive committees.

IMPROVEMENT IN VARIETIES OF CORN.—A writer in the *Prairie Farmer* calls attention to improvement in varieties of corn. He says that if as much attention was paid to this subject as is paid to improvement in potatoes and grapes a hundred millions of bushels might be added to the crop on the area now cultivated within three years. The great want is ealier varieties that will obtain their growth before the mid-summer droughts or early frosts. He is now making experiments in this diection, and calls on farmers throughout the country to give their attention to this subject.

MASSACHUSETTS SHORT-HORNS.—Mr. R. Goodman, of Lenox, has sold to W. E. Skinner, Hamburgh, N. J., the bull *Woodstock*, got by 2d Earl of Carlisle, 2804, out of Laura 5th by Brother Jonathan 2d, 2570; heifers, *Whiteface*, by Rosalie's Oxford, 6138, dam Orange Flower by Red Rover, 2109; and *Hybla*, by Rob Roy, 6128, dam Eva 3d, by Red Duke 4295.

The *Country Gentleman* also notices a recent importation of choice Cotswold Sheep at the farm of John D. Wing, Washington, Duchess Co., N. Y.

AGRICULTURAL ITEMS.

—As there were early frosts last fall, it will be well to take a little extra pains to secure corn for seed that was not frost bitten.

—Sugar beet grown in South Jersey has been found to contain twice as much sugar as roots grown in Massachusetts.

—Rotten chips, decayed leaves, muck, hardwood ashes, lime, and old, well-rotted barn manure are the best fertilizers for orchards.

—One of the aims in farming should be to produce, as far as possible, everything you consume—to buy nothing you can raise yourself.

—In the construction of the Illinois Central railroad, from Chicago to Cairo, a distance of 365 miles, but one good gravel bank was found.

—Don't keep a calf tied or shut up in some damp, dark corner, with hardly room enough to lie down. He needs the sunshine as much as hens, or the plants in the garden.

—Mr. Greeley does not seem satisfied that his $100 prize for the best grape was awarded to the Concord. At a public meeting in New York, he

recently said, "all my money did, was to advertise a grape already known; thus improvement was checked, not stimulated. I am a little discouraged by the result, and do not propose to offer another bank note for a plate of common grapes."

—A correspondent writes to the NEW ENGLAND FARMER that people have come to church in sleighs eighteen Sundays in succession, in Concord, N. H., this winter.

—After losing one hundred chickens, a correspondent of the *Country Gentleman* fed them with the scales that fall from heated iron around a blacksmith's anvil, and the remainder were cured and remain healthy.

—A correspondent of the *Gardener's Monthly* wishing to remove the old putty from a large number of sashes stacked them all in one pile and smothered the whole in stable manure, just fit to make hot beds, and after steaming them a few days found the putty soft and very easily removed.

—In the course of an essay headed, "No perfect Animal without perfect Care," a correspondent of the *Country Gentleman* says, every time a colt, a calf or other young animal feels miserable, hungry, cold or tired, a mark to a certain extent will be left on the general figure.

—A committee of Boston ladies has appeared before a Committee of the Massachusetts Horticultural Society, and consulted with them on a plan for a school of gardening for women. They want 100 acres near a good market, and propose to make the school industrial and self-supporting.

—A gentleman of Brookline, Mass., informs us that a neighbor of his, Mr. E. F. Bacon, has a coarse wool sheep that dropped a lamb February 20, and on the 13th of March, another lamb, both of which she owns, and is apparently proud of, as both are likely thriving lambs.

—Col. Mallet, Professor of applied chemistry in the University of Virginia, says the droppings of a cow for a year are worth as much as $30 worth of guano; and a successful dairyman and farmer in Connecticut reckons his stable manure as worth $36 a year for each animal.

—The tea plant is in successful cultivation some ten miles from Knoxville, on the farm of Capt. Jas. Campbell, where it has been grown for about ten years. It is said that East Tennessee tea drinkers can easily raise their own tea with very little cost or trouble. The plant is a deep evergreen shrub, and grows about five feet high. It is hardy, and needs no protection from frost.

—Mr. Meehan, of the *Gardener's Monthly* is very positive as to the uselessness of attempting to preserve the tap-root in transplanting. He says "the shortening of a tap-root is of no more injury to a tree than the shortening of the finger nails to a man. This matter was settled by Senebier and others over a hundred years ago. Their experiments we have repeated; and no intelligent man teaches any other doctrine."

EXTRACTS AND REPLIES.

BARN-ITCH.—BEST BREED OF CATTLE.

Can you or any of your numerous readers inform me, through the FARMER, of a remedy for barn-itch? It is very prevalent in this vicinity, there being hardly a stock of cattle free from it. I have tried the usual remedies,—salt, grease, sulphur, &c., but with little or no benefit.

What is the best breed of thoroughbred stock, all things considered, for the farmers in this part of Maine? ALVIN B. JORDAN.

E. Raymond, Me., 1869.

REMARKS.—During their winter confinement to the barn, our stock are in a more or less artificial condition. They are crowded into stables which are sometimes too open for comfort, and sometimes too close for health. The droppings of animals, both solid and liquid,—not to speak of the exhalations of their lungs and skin,—emit a vast amount of gases of different kinds, which are unfit for respiration. Then again they are obliged to subsist on dry fodder,—fodder that owing to an unfavorable season, one too wet or too dry, may have been imperfectly grown, or over-ripe, or struck with rust, or it may have been imperfectly cured in the field, or have become mouldy in the mow. The ammonia of the stable may escape by the ventilator, if your barn has one, but what becomes of the carbonic and sulphurous gases, which are heavier than the air? The effect of bad air and poor food on men when crowded into prison ships and Andersonvilles is well known. Scurvy, lice, and the most fearful diseases are the results. If our animals could talk or write, perhaps we should better understand the diseases to which they are subject, and should watch more carefully for the causes which produce them. The old "conjurer" who applied a poultice to the axe that cut the man's foot, may not have been so crazy after all. And we are not sure that it may not be good advice to you and your neighbors, who are troubled with the "barn-itch," to anoint your stables and your fodder, instead of your animals, not exactly with "salt, grease and sulphur," but with a few grains of careful investigation, to be "well shaken before taken."

In submitting your inquiry for a remedy for the barn-itch to the readers of the FARMER, we wish, therefore, to add the question, What is the barn-itch, and what causes it?

The books tell us that the itch in man, the scab in sheep, and the mange in horses and pigs are caused by insects. The microscope helped them to this discovery, and its use appears to be developing a great many new facts in relation to diseases of men and animals. But out West a fatal disease, known as the Mad-itch is supposed to be caused by cattle eating the indigestible chankings of the hogs that run with the "steers" which are fed on corn in the bundle or stook.

There are so many circumstances to be considered in the selection of a breed of cattle for a particular locality, that one must be governed consid-

erably by them in making a choice. If pastures are rich and extensive, they are adapted to large cattle, such as Short-horns, but if pastures are rocky, subject somewhat to drought, and not very rich, some smaller and perhaps more hardy breed will do better upon them,—such as the Ayrshires. Then other things must be considered. What are cows wanted for,—to supply milk for the dairy or for the milkman's cart? If for making butter for the family, merely, the Jersey would be preferred by most persons, as the quality of the milk is very rich.

BURSAL SWELLING.

I have a valuable cow that has a large bunch on the knee of the fore leg. It came this winter, is quite soft, but does not appear sore. The cow is not lame. There are a number of such cases in this section. I can find no one that does anything for them. Can I get any information through your paper? J. H. BOURNE.

Groton Centre, Mass., 1869.

REMARKS.—This is a bursal swelling. There are certain little bags called bursæ connected with the membrane lining the cavities of joints, whose office it is to secrete a fluid for lubricating the surfaces of the joints. These bursæ are often injured by blows, or more generally by the animal falling and striking the edges of the joints upon some hard substance, as the head of a nail, a stone or the sharp corner of a timber. Inflammation follows, and a large quantity of fluid is secreted, which collects and enlarges the bag, forming the tumors referred to. A neighbor of ours has had several such cases. He opens them at the most depending part and presses out the fluid, and they have always done well. He has sometimes opened the same tumors more than once. The opening should be followed by a compress and bandage, carefully applied.

MANAGEMENT OF COWS AND OTHER STOCK.

As considerable has been said of the management of kicking cows I will give the result of my experience in the matter, the practical character of which may be inferred from the fact that in 1818, at the age of nine years, I commenced my apprenticeship by being "put out" to work on a farm, and from that time until I was twenty-one years of age I was employed on a farm where dairies were kept to greater or less extent. Since commencing business for myself I have kept cows varying in number up to forty a year. Consequently I have bought, sold, raised and trained a great many. I have always found gentle usage the best method to make them stand still to be milked or to do anything else I expect of them. My cattle, sheep, and horses will come to meet me in the pasture or field, after I have had them a short time. If I have one that has been abused and is afraid, I take something in my pocket to entice it to me, and in a short time it will become tame and kind as others. Sometimes, when I have been in a hurry and out of patience, I have tied up a cow and given her blows, but in nearly every case it was wrong, and I was sorry I had done it. I never have used ropes or chains or harsh means to accomplish milking. I have done it by using the cows well. You can have almost any animal kind and do your bidding by kind treatment, and without striking or kicking, or scolding. There are occasional exceptions. I have had cows that I could not make kind and gentle by good usage. But instead of attempting to "break them" by rough handling I soon sell or make beef of them. I hold that all beasts that do our labor must obey our commands, but they can be made to do it in almost all cases by using them well. The ox is the noblest animal we have. With what a hearty good will he labors, when properly used. I have been often pained to see him abused. If you are raising calves for the dairy, learn them when young to be gentle. Handle them carefully; make them like you and they never will forget it. When a heifer has her first calf is the time to form her habits. On such occasions they are sometimes wild and half crazed. At that time in particular be gentle, kind and soothing to them. Every farmer should so treat his stock that they will seek rather than shun his company. I find it very convenient when I go into the pasture for my horse for him to meet me half way. O. FOSTER.

Tunbridge, Vt., March, 1869.

REMEDY FOR WORMS IN HORSES, &c.

We noticed in the FARMER, issued Jan. 2, 1869, an article under the caption of "Remedy for Intestinal Worms," taken from the *Boston Journal of Chemistry*, stating on the authority of "Mr. E. C. Haserick of Lake Village, N. H.," how they may be cured, and having a horse at that time very badly affected by them, we immediately determined to try the remedy as therein prescribed. The next day we applied the lard as directed, and the very next succeeding day, took the animal out to use on the road. To our surprise, on seeing the animal dung, not one live worm was to be seen, but one or two dead on the inside of sphincter; whereas, before the application of the lard, we noticed on seeing the animal dung, the internal orifice was literally covered with them, so far as visible, and also great numbers in the fæces. We continued this process one week, as directed, and pronounce the animal cured, as we suppose. Now if this theory should prove to be correct, then indeed it will be no longer a theory, but a matter of fact, and facts are stubborn things. This is but a single trial with me, and may need further confirmation; but if it should prove to be a remedy, as it seems likely it may, for intestinal worms in horses, and also in the human species, as stated in the article referred to, it must be considered as a very simple and efficient one for a trouble at once extremely annoying if not serious, and therefore we do consider it our duty to make the facts as above stated known to the public, as desired in the article referred to. JONA. FARNHAM.

South Uxbridge, Mass., March 12, 1869.

SINGULAR DISEASE OF A PIG.—CANKER WORM.

I purchased a pair of pigs in Manchester, N. H., last fall; sold the sow and kept the boar. Late in the fall and early in the winter my pig did not eat well, had the scours, and grew poor. After a time I succeeded in getting him so that he eat raw turnips. But although kept in a clean pen, with a dry bed of India wheat hulls and shavings, he became covered with a black scab or scurf, carried his head on one side much of the time, and acted as though his ears itched, or head ached. I washed him with soap suds and occasionally buttermilk, and scrubbed him with a cob all over, not forgetting the issues, with apparently good effect, but all at once he refused all food and in four days died, having lived till March 3. At the time of his death his body was purple nearly all over. During the winter his breathing was like a

person with the phthistic. The scurf or scab may have been caused by a fever. Have you or any of your readers a name and remedy for the disease?

As a change in the breed of hogs I have obtained a Red Rock sow, from which I hope to raise pigs. I think them the best kind of hogs in my knowledge. They are of a light red color, large, well-proportioned, hardy, and make the whitest pork I ever saw and the thinnest rind. FRANK.

Woodstock, Vt., March 22, 1869.

REMARKS.—The difficulty in the breathing of your hog would naturally suggest the probability of some disease of the lungs or heart. Did you examine them? The great variety of ills to which swine have been subject of late has very justly alarmed not only farmers but those who use pork, as well as baffled the skill of veterinary surgeons. Sulphur, coal, ashes, &c., are recommended as preventives of disease.

Our correspondent also replies to Mr. Robert's inquiry for information as to the best means of preventing the ravages of the canker worm, by saying that plugging the trees with sulphur, "as soon as they commence to build their nests," will cause them to disappear in less than a week, or such has been his experience. The remedy is an old one, in which we have no faith; and as the canker worm builds no nests, we conclude that "Frank" is, most happily, unacquainted with its habits.

HORSE WITH POOR APPETITE.—ROSE BUGS ON GRAPES.

Will you, or any of your readers, inform me through the FARMER, what is good to give a horse to make him eat heartily? Also, how to prevent rose bugs from eating my plants, especially the grape leaves and blossoms?

A CONSTANT READER.

Apponaug, R. I., April, 1869.

REMARKS.—A healthy horse will eat heartily if he is worked moderately, fed regularly with a suitable amount of food, and stabled so as to be warm and comfortable in other respects. We have never known a horse that was well refuse its food under such circumstances. If he does refuse to eat, he is probably sick, and the first thing to do is to find what that sickness is.

Rose bugs are a plague. We have more than once had a realizing sense of it. Have tried syringing the plants with whale oil soap and other things, but never found much relief except in *fingering* them. Pick them off and throw them into water, hot or cold. Get the women and children to assist you; follow it up thoroughly for a few days, and you will save the crop, if your vineyard is not too extensive. We know of no other way of doing it.

DISEASE AMONG SHOATS.

I have a horse-barn 26 by 40 feet, a shed under the whole building high enough for cattle; two-thirds of one side next to the yard open. A few years ago I put under the same, six shoats. They nested as they chose on the manure heap from the stable above.

It was in warm weather, and the open space was closed only by bars, so there was plenty of ventilation. They were fed with sour milk from the dairy. After thriving nicely for two or three months, one of them, eating well in the morning, was dead at noon. The second day after, one was heard to squeal out suddenly as if in great distress, was looked after, and was dead in a few minutes.

The swine were immediately removed and there were no more symptoms of disease.

One year ago last summer we put our swine into the same place, and experienced a result similar to that related above.

What is the disease, and what the cause? Can we safely keep shoats under the horse-barn and suffer them to lie on the manure heap? S. P. I.

Washington Co., Vt, 1869.

COVERING FOR FLAT ROOFS.

Will you please inform me of the best roofing for a flat rooted building? I have a barn 50 by 84 feet, the roof pitches three feet each way from the centre. It was formerly covered with "New England Roofing." I do not like it, and wish to ascertain the best thing to cover it with. I used to see advertised in your paper the Plastic Slate Roofing. What has become of it, and how does it work?

Milton, Vt., Feb. 27, 1869. A. M. AUSTIN.

REMARKS.—This matter of roofing is one of much importance to farmers. In this climate a good covering to buildings is very necessary, and is becoming quite expensive. Some such material as the Plastic Slate is claimed to be is so desirable that, notwithstanding the failures that have been reported, we still hope that when its preparation and use have become a trade, it will prove a success. We do not think it advisable for those not acquainted with its use to attempt to apply it. Plastering the walls of a house is theoretically a simple operation, but practically it is a difficult job for the inexperienced. We understand that Mr. Geo. Holland, of Rutland, Vt., has operated to a considerable extent in that vicinity with the plastic slate, and perhaps he would reply to any questions you wish to ask.

SCRATCHES ON HORSES.

I have cured bad cases of this disease by applying to the affected parts common whale lamp oil, and rubbing it in until the scabs soften and come off; then keep the parts moist with the oil until they get well, which they usually do in a few days. AMOS MELVIN.

Concord, Mass., March 22, 1869.

REMARKS.—Alexander Crozier, of Fletcher, Vt., writes to us that he has treated scratches for thirty years by paring and greasing the castors or issues on the leg, without any application to the sores, using his horses as usual meantime, and has always succeeded in effecting a cure.

DEPTH OF TAPPING MAPLE TREES.

In your paper of April 3, G. F. says that he gets as much sap by boring three-fourths of an inch as by boring three or four inches deep. Can he raise as much corn on half an acre as he can on six times that amount of ground? If he cannot, will he tell me how he can get the sap without boring to it. My father has worked at sugaring some sixty years. About twenty-five years ago he let out his sugar lot to a man who thought one inch was as good as more. He wanted father to

help him about tapping the trees, as the sap started in a hurry. Father bored from two to three inches deep; the other man one and a half or two inches. When he came to gather the sap he found that there was considerable more sap from the trees bored the deepest, but he could not tell the cause of it. For the last twenty years I have worked in the sugar lot, and am satisfied that three or four inches is better than one inch; a large amount of sap is what we want; and my trees heal up as soon as those of my neighbors who do not bore more than half as deep as I do. FARMER.

Wallingford, Vt., April, 1869.

WARTS.

How shall I cure the warts on the teats of a nice heifer, expected to come in the first of June?

Tuftonboro', Me., 1869. J. B. B.

REMARKS.—As nothing is made in vain, we presume warts have some "mission" in this world, and when that mission is performed they disappear, with or without doctoring. Hence perhaps the popularity of many of our favorite wart prescriptions, applied just as they were ready to depart. Many kinds of caustics, such as the various forms of nitre, vitriol, &c., are used. An ointment of equal parts of tar, sulphur and lard, melted and stirred till cold, was recommended by a correspondent of the FARMER, a few years since, for the removal of warts and the cure of barn itch. Small warts may be removed by working them loose from the skin, with or without the use of caustics or a little spirits of turpentine, and clipping them off, or rather out by the roots, with a pair of scissors. Larger ones are removed by tying a hard string around them. One lady—there are no women, now-a-days—who has milked cows for many years, said she always cured the warts on her cows by rubbing and working them with her finger wet with spittle, but she told us not to print it, as folks would laugh at us. The warts should be cleared off in time to heal over before you want to milk your heifer.

THE ONION WORM.

Not long since I noticed in the FARMER an inquiry as to how much air-slacked lime should be applied to a common paper of onion seed to kill the onion weevil or maggot. I can answer that no amount of lime will do it. The weevil is the offspring of a fly, about one-half inch long, light colored, with transparent wings. It performs its work mostly between sunset and sunrise. I have seen a few at work very early in the morning and occasionally one or two near the middle of the day. Lime in sufficient quantity may be applied to prevent the fly from depositing its eggs, which it deposits in the earth, touching the bottom of the onion. My way is when I weed my onions to cut up the weeds between the rows and remove them with all the earth I loosen; then with my fingers I remove the earth below to the bottom of the onion, but not disturbing the roots, and have never been troubled with the maggot. For an experiment I have for several seasons left a few on one end of the bed without removing the earth. These have always been destroyed by the maggot, while those properly cared for were not touched.

East Montpelier, Vt., 1869. AN OLD MAN.

REMARKS.—We have delayed the publication of the foregoing a few weeks for the purpose of bringing it before our readers more seasonably. We hope to hear again from our correspondent, and will assure him that the suggestions of old men are highly prized by the editors and readers of the FARMER.

FOOT ROT IN SHEEP.

MR. EDITOR:—As the season of the year is approaching that this difficulty commences anew to trouble sheep, I beg leave to express a few thoughts on the subject. Though the disease may have been prevalent the previous year, it does not much affect a flock during cold weather, otherwise than to reduce to some extent the general condition of the sheep that have the infection in their blood. I take the ground that the disease is general, and that it affects the condition of the blood and of the whole system of the animal. As warm weather approaches the latent disease manifests itself in inflammation and suppuration of the feet. But as the disease develops itself locally, its treatment is necessarily local. It may still be a good idea to doctor their blood with sulphur, &c.

The disease should be attended to in season, and as soon as any symptoms of lameness are observed. Farmers are too apt to delay their treatment, and to entrust it to incompetent persons,—hired men or boys who have neither knowledge nor interest in the matter. The principal secret of curing is the thorough use of a sharp knife, followed by the application of some one of the various preparations which have often been recommended, and most of which are efficient if properly administered.

It is not pleasant to know that your sheep are diseased and that the treatment is attended with some little trouble and expense. But there is no occasion for the alarm and discouragement which many have evinced in reference to it, and which have led some farmers to say, "*I can't keep sheep, they all die with foot rot.*"

Many suppose the disease is communicated by the feet of the animal coming in contact with the poisonous virus left on the ground by other infected sheep. I doubt the correctness of this opinion. From more than thirty years' observation, I am satisfied that the disease is communicated by exhalations from the body and lungs of the sheep. But however contracted, I assert with confidence that the disease *can be cured*, and that the process, as the jugglers say of their tricks, is easy enough when you once know how.

I would earnestly advise my wool growing brethren not to be discouraged by the appearance of this disease among their flocks. With proper care and treatment it may be cured, and from my experience I should value an infected sheep or flock much higher than many farmers would. Sheep growing is an interest of too much importance to be abandoned. Let us secure the hardiest breeds, and learn the means of preserving their health, and of curing their diseases. Fortune favors the brave, and our turn for profit on our flocks will come before long. Cure up the sheep! Cure them early, and cure them often, if they need it! T. S. F.

Felchville, Vt., April 10, 1869.

REMARKS.—Our correspondent differs from "the books" in some of his views. A veterinary surgeon, a graduate of the Royal College at Berlin, Prussia, and late Veterinary Surgeon-in-Chief of the United States Army, and who declares that he "is not only conversant with the home and foreign literature on the subject, but has acquired an extensive experience by long continued, assiduous

study and the practice of many years," has just published a book on "The Diseases of Sheep." Dr. Clok, for that is the name of the author, says: "Since the foot rot is a *purely local disease*, a general treatment and internal remedies are wholly useless and should be dispensed with. Good and copious food, and perhaps from time to time salt licks mixed with wormwood, oil of turpentine, tar, &c., are recommended." He also says, "foot-rot is very highly contagious, as has been determined with certainty by numerous observations and experiments, made by inoculating the secretion. No preventive is known, because the disease arises solely from contagion. The progress of the contagion is facilitated by wet summers, or by the sheep standing closely together on warm dung in a stable. Cold and dry weather retard the progress of the epidemic." But still the line of distinction between a general and a local disease, like that between long wool and fine wool sheep, may be less easily recognized in practice than in theory. There is such a wonderful sympathy between the different parts of the animal system, that when one suffers all others may be more or less affected.

But perhaps as the subject of the foot rot is now up, and Dr. Clok's book is open at that subject, it may be well to give some further account of his views, especially as he claims to have been very successful in its treatment, and believes, with "T. S. F." that the disease will nearly always yield to a proper treatment.

He recognizes two forms of the disease, which he calls The Mild Form, and Malignant Foot Rot. The latter is the usual form in this country. We have not space for his distinctions between the two. The disease is peculiar to the Spanish sheep exported to other countries, but is not known in Spain, the native country of the Merino.

"If the foot rot has broken out among a flock of sheep, it is of the utmost importance to separate the healthy sheep from the sick, in order to prevent as much as possible the spread of the disease. All sheep which are lame, and in which the disease is unmistakably present, should be removed.

Experience has made us acquainted with a large number of remedies, by means of which foot rot may be cured. The reputation which any one of them may have acquired above the others seems to be based more on the manner of its application than on its superior curative properties. The medicine is of secondary importance, the chief point being the surgical, manual operation.

The only aim of the treatment being to lay bare the diseased, suppurating surfaces, and to destroy the infectious matter on them, the remedy which accomplishes this with the least possible disagreeable secondary effects is evidently the best.

For this purpose chloride of lime (bleaching salt) is without exception the best, because it destroys the infectious matter of the foot rot, like all other animal contagions, in a wonderfully rapid and certain manner. I myself cured nine large flocks in different places so rapidly and easily by its use that I was surprised. No other remedy had before afforded me such good results.

After removing all the sick sheep from the flock, it is possible and even probable that some of the remaining ones are already infected, although they do not show the disease, and that some of the virus adheres to their hoofs. This virus is destroyed by chloride of lime in the following way: A crib or long trough is filled to the height of six inches with cold water, into which one pound of chloride of lime is poured for every pail of water. The suspected sheep are forced to go through the water in it, which can easily be done. If the hoofs of the sheep are very dirty, they should first be driven through water or dry straw. They are then turned out to pasture, which must be as dry as possible, rich in grass and not too distant. If possible they should be kept in the open air, far enough away from the others. The flock should be inspected every third day, and if a sick sheep is found it should be immediately put with the other patients.

The sick sheep are treated as follows: It is important to remove immediately all separated and loose horn with a narrow, sharp knife; for it is evident that the remedy, which is to destroy the virus and cure the disease, cannot act as long as the suppurating surfaces are covered. This cutting is therefore the principal thing, and the success of the treatment depends on the complete and proper performance of the operation. The bad repute into which some remedies have fallen is due in a great measure to the method of their application.

A knowledge of the anatomy of the sheep's hoof will prevent the abuse of the knife. It is proper in all cases to pare down the sick hoof considerably at the toe and external wall, because it can then be more easily examined, and it does not touch the ground so forcibly when the animal is walking as when it is larger than the healthy one.

Every hidden channel which may be present should be sounded, opened and laid bare. If the wound becomes covered with blood during the operation, as is commonly the case, it should be frequently dried with tow. If a single diseased place remain from which the horn is not removed, a cure cannot be expected. After cutting away the whole or a part of the horny capsule, it is always necessary to apply a bandage to protect the hoof from dangerous external irritation. After applying chloride of lime to the surfaces as above, the cleft is filled with tow whose ends are twisted into a small cord and fastened around the pastern joint. This forms a soft and tightly-fitting bandage.

The diseased hoofs are inspected daily, covered with chloride of lime, and bandaged anew if necessary. If a diseased spot is discovered which escaped notice before, the knife must be applied, and not unfrequently a portion of the newly-

formed horn again removed. Generally two or three applications are sufficient for a cure."

We have seen somewhere a statement that a couple of boards placed on a saw horse and fastened to its sides, in the form of the letter V, makes a convenient bed for a sheep to rest in, back down, while operating on its feet.

SETTING OUT FOREST TREES.

I am somewhat interested in setting out a row of forest trees by the roadside, and propose to set a number of Shellbarks which can be found in some of our fields and pastures. There is some authority for believing that it will be difficult to make them live, and finding no one who can speak from actual experience, I have concluded to ask your advice. What is your experience? Will you, or some readers, give their information as early as possible, as the time for setting trees will soon be along, and oblige a subscriber. CROCUS.

Hopkinton, Mass., March 25, 1869.

REMARKS.—The shellbark and common chestnut are among the trees most difficult to transplant and make live. We have tried the shellbark repeatedly, but have had very little success. Both these varieties have long tap-roots, and they seem to be the ones upon which the tree principally depends. In taking up a shellbark you will find very few small roots, and so with the chestnut. If trees are selected from pastures, the tap root must be preserved in its whole length, if possible. We think it would be cheaper to purchase the trees from nurserymen who have prepared them on purpose for transplanting.

PRUNING APPLE TREES.

Much has been said and written by orchardists in regard to the best months for pruning fruit trees. Some recommend doing it just as the frost is leaving the ground, and before the buds burst; some while the trees are in bloom; while others contend that fall is decidedly preferable. From more than twenty years' observation I have become fully satisfied that no season of the year is so objectionable as the spring, when the buds are expanding, and the sap thin and in full flow; the sap is quite injurious as it oozes out, and causes the wound to assume a dark, unhealthy appearance, which is a sure omen of decay.

Every season has its advantages as well as disadvantages, but none is preferable in my opinion to summer, when the days are the longest. The sap then is not so thin and watery as in the spring, and consequently less liable to flow out, and wounds heal much more rapidly. I am of the opinion that very light pruning is much preferable to heavy for the health of the tree, and even none at all I should prefer, rather than to kill trees by inches, as some do by heavy pruning. But let pruning be done when it may, I think much benefit is derived from applying a coating of cement to the wound to exclude the air and prevent its cracking.

My grandfather told me when he was alive, he had tried various kinds, and found nothing more economical than to melt four pounds of rosin in one pint of linseed oil, and apply warm with an old moderately stiff paint brush. I shall be very happy to hear from others upon this subject through the FARMER. A. C., JR.

Bethel, Me., March 28, 1869.

REMARKS.—We agree, mainly, with the writer of the above remarks, and hope his suggestions will be considered. Without understanding something of the nature and habits of the tree, we shall rarely judge correctly of what is best to do for it. It certainly will not answer to allow it to take its own course. What shall we do? Study the tree and work upon it according to the knowledge we gain; learn when the sap does not flow freely and then prune if the tree needs it. That will be in midsummer, and in autumn after the leaves have fallen. More orchards are injured by untimely pruning than by any other cause.

ASHES AND SAND FOR BORERS AND MICE.

About sixteen years ago, I set a few apple trees, with little expectation that they would amount to much, for nearly all fruit trees in this section were badly infested with borers. Having seen a recommendation to use sand as a preventive for borers, I concluded to try it, and having some ashes on hand, mixed them at the rate of two parts sand and one part ashes, thinking the ashes would be an improvement, and put a mound of the mixture from six to ten inches high about the trunks of the trees in the spring, leaving it till September, when I spread it, that the bark might harden before winter. My trees have been thrifty and have made a good growth. I have never been troubled by mice, but should think banking the trees with the same mixture just before the ground closes up for winter would be a good preventive and not injure the trees. I should suppose any thinking farmer would be careful about putting strong alkaline or other similar substances in large quantities directly against a tree or other growing plant.

WENDELL.

South Randolph, Mass., March, 1869.

NORWAY OATS.—SWEET RUSSIAN TURNIPS.

In the spring of 1867, I sowed one pint of Norways on ordinary ground,—the product was one bushel. Last spring I sowed thirty quarts on half an acre of ground, in fair condition, but dry. On one and a half acres of similar ground I sowed nearly five bushels of the variety known as the Potato Oats. The product of Norway was twenty-one bushels, of the Potato Oats forty bushels. Weight of the former thirty pounds; of the latter twenty-eight pounds. The weight of the old common variety being twenty-six pounds, or nearly two pounds lighter. They all suffered severely from drought. Hence the light weight and small crop. As far as I have been able to learn, all who have tried the Norway oats in this vicinity, with perhaps one exception, are pleased with them. In this exceptional case, sixteen quarts were sown on half an acre of very dry ground. The product was about twelve bushels. I am inclined to the opinion that if as much more seed had been sown the result would have been satisfactory.

Can any of your correspondents inform us where the Sweet Russian Turnip seed can be obtained?

WILLIAM BURBANK.

Bloomfield, Essex Co., Vt., March 18, 1869.

SCRATCHES—WARTS—HORN AIL.

I have lately cured a case of scratches or grease on a horse, after a large number of remedies had been tried without success, by four applications of white lead and linseed oil.

For some twenty-five years past I have kept a little spirits of turpentine in a pint flask, with a small quill through the cork, by which I can readily apply as small a quantity as I desire. By three applications to a very large wart on one of my heifers, I was able to remove it in ten days

without drawing blood. Small ones are removed with less trouble. In case of horn distemper, I think it is beneficial to put a little spirits of turpentine on the creature's head about the horns. I would as soon bore my own skull with a gimlet for the headache, as a creature's horns for the horn ail. In the nose of the animal, nature has provided a channel for all discharges from the head. W. F. LOOMIS.

Langdon, N. H., March 13, 1869.

ONION SETS.

I want to raise a few onion sets. Can you or some of your readers give me through the FARMER a few hints on their culture? E. H. C.

Roxbury, Mass., March 2, 1869.

REMARKS.—We suppose our correspondent means by "onion sets" such as are raised by the market gardeners, who use small onions or "sets" instead of seed. The sets are mostly raised in the neighborhood of Philadelphia, and cost, a few years ago, some $40 per barrel,—enough for one-eighth of an acre. They are planted on what these market gardeners call "beds," that is, land highly manured, thoroughly ploughed, and carefully hand-raked. They are planted at different times to secure a succession of crops.

PINE SHAVINGS FOR LITTER.

Please inform me through your valuable paper whether it will pay to draw pine shavings from planing machi es, a distance of six miles, at a cost of fifty cents per load? Can draw in a box built for the purpose, three hundred bushels. Is this cheaper than straw at six dollars per ton for bedding horses and cattle? ONYX.

Williston, Vt., April, 1869.

REMARKS.—The shavings cost fifty cents a load, to which is to be added the cost of hauling, we suppose. Well, if the team can be spared about as well as not, we should go for the shavings rather than go for the straw, and pay six dollars per ton for it.

IRISH POTATOES FROM SETS.

I wish to inquire through your paper whether Irish potatoes can be grown from sets similar to to the sweet potato? Whether there is any difficulty in so doing? SUBSCRIBER.

Shelburne, Vt., 1869.

REMARKS.—We suppose they can, but never knew it tried; and cannot tell you. Who will?

REMOVING GOOSEBERRIES.—CRESTED DUCKS.

What time of the year shall I transplant my gooseberry bushes. The bushes are large and heavy bearers, and I want to remove them without injury if possible. Will you also inform me what breed my newly purchased ducks belong to? They are large, white, with large white "waterfalls" on their heads, black spots on sides and breasts. M.

Newport, Me., April 5, 1869.

REMARKS.—Gooseberry bushes should be removed as soon as possible. Early in the spring, or in good season in the fall, are nice times for transplanting.

We presume your ducks are what is called the Crested or Top-knot. They are of various colors, pure white, black, and mixed black and white. They are a beautiful and ornamental variety.

TOP-DRESSING FOR SANDY GRASS LAND.

What is the best top-dressing for grass land on sandy loam. H. M. B.

Curtis' Corner, Me., April, 1869.

REMARKS.—Probably a rich compost of clear barn manure thoroughly mingled with old meadow muck. Two parts of muck to one of manure will make an excellent compost.

TO REMOVE PITCH.

In handling pine wood a person's hands are often smeared with pitch which it is difficult to wash off. By applying grease or oil just previous to washing, it can be readily removed.

Melrose, Mass., April, 1869. PHILAETER.

AGRICULTURAL ITEMS.

—Col. B. P. Johnson, for many years Secretary of the New York State Agricultural Society, died in Albany, April 12th.

—By the use of machinery invented within the past twenty years, the farmer's boy can often do the work of ten men.

—If any one was ever dragged around by the hair of his head, he can guess how pleasant it is for a sheep to be hauled about by the wool.

—Wild horses have become so numerous in New South Wales that they are regarded as a pest and are trapped in various ways. They sell by the hundred at two cents apiece!

—A correspondent of the *Prairie Farmer*, who sowed a sample of the Arnautka wheat from the Department of Agriculture in 1867, is well pleased both with the yield and the quality of the grain. He raised at the rate of fifty bushels per acre.

—Kennicott says plant small trees. They cost one-half less at the nursery, less in transportation, and in planting you will scarcely lose any. You can form the tops to suit yourself. Form the heads as low as you please.

—If it is true, as is often said, that one of the secrets of successful farming is to sell when others are buying, and buy when others are selling, the present is just the time to buy or set out a hop yard.

—The Commissioner of Internal Revenue has recently made a decision to the effect that cheese factories are manufactories and liable to pay a tax. Butter and cheese manufactured upon the farm where the milk is produced is held to be exempt from taxation.

—A correspondent of the *Ohio Farmer* whose sheep were dying from a disease known in that section as "paper skin," similar, we think, to the bloodless disease described by Dr. Boynton of Woodstock, Vt., a year or two since, killed one or two of these diseased sheep, about on their last legs, and on dissecting them, found the tubes of

the lungs filled with small thread-like worms, from half an inch to two inches long, and of a whitish color. He then killed a healthy, well-conditioned wether, examined its lungs and found nothing of the kind.

—A short time before his death, Gen. Washington wrote a letter containing the following passage: "It is hoped, and will be expected that more effectual means will be pursued to make butter another year, for it is almost beyond belief that, with 101 cows reported on a late enumeration of the cattle, I am obliged to buy butter for the use of my own family."

—The well known seedsman, James Vick, writes to the *Rural New Yorker* that he has about three bushels of the potato recently named the King of the Earlies, which, at $50 a potato—at which price these potatoes are said to be sold—he estimates to be worth $30,000. Instead of thinking this variety a week earlier than the Early Rose, he pronounces it two weeks later, and evidently has but a poor opinion of it.

—The Worcester County, Mass., Horticultural Society will hold its Thirtieth Annual Exhibition of fruits, flowers, plants, and vegetables, at Horticultural Hall, Worcester, Mass., Sept. 21-24, 1869. A liberal list of premiums, from $20 to $1, has been made up. The society also offer a piece of plate valued at $25 "for a safe, certain and economical method, better than any now known, of destroying the currant worm, or preventing its ravages."

—It is already easy to distinguish the English from the American elms on Boston Common, by the more advanced condition of the buds on the imported trees. It is spring in old England; and these trees are true to the habits of their ancestry and their infancy, regardless of the many scores of years that they have experienced the bleak tardiness of the New England climate. They also remain in foliage in the fall considerably longer than the American elms.

—The *Ohio Farmer* compares the reports made by the cheese factories at the meeting of the Dairyman's Association at Barre, with that of a factory in Loraine County, Ohio, and concludes that the old Bay State is much behind Ohio in the production of cheese. In Massachusetts there was an average of 10 1-10 lbs. of milk used to one of curd cheese; in Ohio 9 6-10; the price obtained for the Massachusetts manufacture was $13.50 per hundred pounds; for the Ohio, nearly $16.

—President Abbott, of the Michigan Agricultural College, in the course of an essay on agricultural education, published in the *Western Rural*, says: "A good agricultural education at the present time would consist of a good knowledge of botany, chemistry, zoology, physiology, geology, meteorology, and the like, with a knowledge of mechanics; and joined to these a knowledge of their applications to agricultural science, so far as those applications are supposed to be known; with next, a knowledge of those theories and applications to the science which are commanding the attention of both scientific and practical men, with, lastly, some knowledge of the deficiencies of agriculture both as a science and an art."

THE ROLLER.

Few implements used in the management of our farms are possessed of a higher practical value than the roller. As its form is various, so also are the uses to which it is applied. It would be poor economy to dispense with its assistance in any *system* of tillage, be the nature of the soil what it may. In some remarks upon the importance of the roller, a foreign author very judiciously observes:—

"The first object usually aimed at in the use of this instrument, is to break those clods or indurated masses of earth which have resisted the action of the harrow; or, at all events, to bury them in the ground, so that at the next harrowing—which, when thus buried, they cannot well escape—they must of necessity be somewhat diminished in size."

The second object, according to our author, is to give a superior degree of compactness to the soil, and to effect a more perfect union of its component parts. The third use to which it is applied, is to press down and consolidate the earth about the seed, and to cause the latter to adhere better to the soil. The fourth is to cover with mould, or to press into the earth, the roots of those plants sown the preceding autumn, and which may have been detached or thrown up by the action of frost. Some persons think it has a tendency to destroy the insects which are constantly lurking beneath the surface, and ready at all times to prey upon the young and tender vegetation.

The shape of the roller is various. It is generally *round*, though sometimes hexagonal and octagonal, and a roller armed with long spires or spikes, intended for pulverizing or breaking the clods, as well as for scarifying and loosening the earth where it has become "bound out," and requires loosening and renovating, is sometimes used.

A very good roller *may be* made by taking a hollow log—say three feet in diameter—and affixing to each end a gudgeon by which to draw it; but the *best kind* of roller is that made by constructing two trucks of the required diameter, and having placed them on edge, six feet apart, with a cross beam or axletree extending through the centre of each, fasten them by strips of stout plank, four inches wide, so that the roll will resemble the drum of a factory, when finished. A frame may be added, with a convenient seat for the driver, where weight will often be necessary to give efficiency to the implement, especially where the soil is very light and dry, as well as on those fields where there are clods to pulverize, or small cobble stones to be pressed down.

Every one who has rolled a field sown with

grain, has observed that the seeds come soonest in the tracks of the animals used in drawing the roller. This makes it sufficiently evident, that, in order to secure quick and healthful germination of the seeds, the soil should be closely pressed about them, while the mass of the soil should be light and finely divided.

WHEAT---RYE---OATS.

We had a little chat last week with Mr. R. S. Blanchard, one of our subscribers in Walpole, N. H., who came to market with a flock of sheep fed by himself, the sale of which was noticed by our reporter. Mr. B.'s farm is on the Connecticut River, but none of his land is subject to the annual overflow of that stream. His soil is a heavier loam than much of the River land. On half an acre of this land he harvested fourteen bushels of wheat last year. The land was in good order, having been planted to corn the year before. On the half acre he sowed some twenty-five bushels of ashes; leaving, however, two corners purposely without ashes. On one of these corners he applied a dressing of lime from a parcel that had been left by the masons and had laid in a cellar two or three years. On the other corner nothing was applied.

When the wheat was just beginning to head, the whole field was beat down by a storm as flat almost as though it had been passed over by a roller. The neighbors thought it could never rise. In a few days, however, it gathered itself up pretty well, but in about two weeks it was again prostrated by another storm, but not quite as badly as at first. Most of it again stood erect. Between the portion ashed and that limed there was little difference; but on that to which neither ashes nor lime was applied the growth was considerably lighter, and the straw was rusty, while it was bright and handsome elsewhere. He believes the ashes and lime strengthened and toughened the straw, and saved the crop.

He also mentioned a little experiment in sowing winter rye in the spring. From twenty quarts sown in March seven bushels were harvested. If put in early enough to have the ground well frozen afterwards, he thinks winter rye may be sown in the spring.

In reply to our questions about raising oats he said his crops ranged from 50 to 95 bushels per measured acre. Had raised 85 bushels per acre on a field of five acres. He had tried superphosphate but on his land thought it was no better than the same amount of leached ashes.

For the New England Farmer.

RAISING CALVES.

I do not propose to give a method of raising calves, so as to produce large and fine animals at one year old on a minimum quantity of milk. For such a purpose, Mr. Secretary Flint's hay-tea system is perhaps the best that is yet known. Yet nearly all the experiments that I have seen tried, to raise calves on a meagre allowance of milk, have been unsuccessful. I have a method tested by ten years' experience, without a single failure, that will produce yearlings fully equal in size to average two-year olds reared on the old system. The method requires only a small quantity of new milk, and not a large quantity of skim-milk.

The breeding cow should be at least four, or, better still, eight or ten years old; and should be dried two months before calving. She should be kept in good trim, but not very fat, by giving her all the good hay she will eat up clean, and two quarts only of corn cob meal, daily, or its equivalent in some other concentrated food.

Let the calf remain with the cow from four days to a week after it is dropped, or until it becomes sprightly and eager for nourishment. This is a great advantage both to the cow and calf; for the calf will learn to drink more readily, and the subsequent flow of milk will be increased. If the instinctive yearnings of the mother for her offspring, during the first few days, are not gratified, such violence is done to her feelings as will reduce permanently the quantity, if not the quality of her milk. The cow should be milked clean twice daily, after the calf is satiated.

Remove the calf as much out of sight and hearing of the cow as circumstances will permit, to a clean, dry appartment, well littered with straw or sawdust, and always supplied with fresh loam for the calf to lick, and keep the apartment dry and clean through the entire season of its use. Let the calf fast eight or ten hours, before attempting to feed it. Then if it will suck your finger, with or without a rag wound around it and wet with milk, you may gently press down its head so as to bring its lips in contact with a little warm milk in a dish, still keeping your finger in its mouth; and with a little kindness, patience and perseverance, and such means as the trial will readily suggest, you will soon learn it to drink.

But occasionally there is a calf that will not suck the finger, nor anything else, except what nature has provided for it, without long and weary solicitation, partial starvation, and an exhaustion of more patience than any ordinary man or woman possesses. I have known several such cases, where the final result has been despair to the owner and death to the calf. Such a result can be avoided by taking a tin coffee-pot, partially plugging the spout, winding a rag around the same,—passing one thickness of a thin rag over the end of the spout, and making all fast. Make the cover tight by a rag or otherwise, then put in the pot a quart of milk, fresh and warm from the cow, and insert the spout in the mouth of the calf, elevating its head so that the milk will run down its throat. If fed slowly, the calf will swallow. If there be symptoms of choking, or extreme

reluctance to receive the milk, remove and re-insert the spout at short intervals, giving the calf time to breath and rest. If the weather be cold, or the process of feeding be long continued, care must be taken to keep the milk at blood heat, by warming the pot in hot water, or by other means; for cold milk is extremely offensive to a young calf, and will induce scouring. Persevere in this method, day after day, if necessary, or until the calf sucks the spout; and here ends all trouble, for thereafter the calf will be after you, and ready to take his food in any way proffered. If, in the trial, you find your patience waning, give you wife one dollar or five dollars, according as you value said wife and calf, to complete the task.

While in the above process, keep the calf hungry, feeding only twice a day, with not more than a quart or three pints at a time actually swallowed. After the calf has learned to drink, gradually increase the quantity to three quarts, twice a day.

When the calf is ten days or two weeks old, accordingly as it may be a good or poor feeder, begin to substitute small quantities of heated skim-milk, mixed with the new milk, gradually increasing the former and diminishing the latter, till at the end of three or four weeks, the new milk be wholly withdrawn.

At six or eight weeks old, the maximum quantity of milk is required; when it should be, to each calf, seven or eight quarts per day. After this, the milk may be gradually diminished, as the appropriation of other food is increased. *The calf must have some milk until it is five or six months old.* If it be desired to withhold milk entirely at the end of this period, begin to add warm water in the second month, gradually substituting it for milk; and in the fourth month begin to add minute quantities of some kind of meal, so slowly increasing the same, that at the end of the year, it shall not exceed one pint of corn meal, or its equivalent, daily. Let the calf have no cold water till it is five or six months old. The mean average daily feed of milk for the six months need not exceed five quarts to each calf. As to other feed besides milk, during the first five or six months, with the small exceptions herein named, only one thing is necessary, viz: *old hay*—not mown grass, not new hay, not rowen.

I have at this writing two thriving calves, about three weeks old, that eat hay and chew the cud, with all the dignity, composure and apparent satisfaction of oxen. The hay should be put before them, not first, when they are two months old, as some writers recommend, but as soon as they are taken from the cow, and kept before them continually, fresh and clean. I have tried nearly all kinds of feed that have been recommended, and with the exception of milk, hay and hay tea, have found them all positively injurious to young calves. They should have airings and exercise in a yard where there is the least possible amount of grass, plenty of loam, and cool shady places. The old system of weaning calves by turning them out in the hot sun, and into a full feed of grass, is well calculated to make scrubs, and it seldom fails to do so.

A six or seven months old, having been permitted slowly to increase its feed of grass, the calf may be turned on a stinted aftermath; an orchard is an excellent place, and the wind fall apples will not hurt them. There need be no water in the lot, as it is better to give them drink in the form of warm water and very little meal.

If, during the fall and winter, there may be on hand skim milk, sweet or sour, that is not demanded by filthy and abominable swine, so that two or three quarts freely diluted with hot water, may be furnished to each calf daily no meal or oats, or other concentrated feed is required—milk is better than anything else. When winter comes tie up your big calves as you do other cattle, and give them all the varieties of fodder that they will readily eat.

Sometimes from an inflamed udder and consequent unhealthy milk, the young calf will be feverish and constipated. As a remedy, dissolved Epsom salts or castor oil may be administered in the feed. But oftener from too much cold milk or access to grass, scouring is induced. For this, chestnut bark tea is a sure remedy.

The above method is intended for spring calves, but with such modification as the season may require it will be found to be equally successful with fall and winter calves.

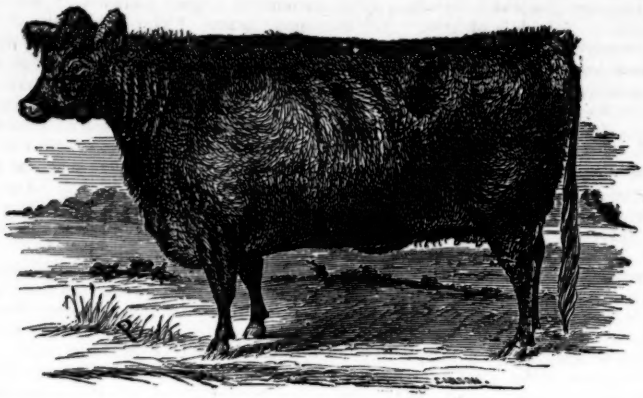
To milk men the above method may seem too costly; but while butter is fifty cents a pound, and the calves are worth thirty dollars each, at eight months old; and while I would sooner pour the skim milk on the manure heap than have any detestable swine on the farm, I am satisfied with the result.

In closing, let me say to the reader, commit the care of your calves to a common hired man or careless boy, and although they will assure you that your directions have been faithfully obeyed, yet you will be ashamed of your yearlings. Take care of them yourself and you will be proud of them. Eternal vigilance is not only the price of liberty, but the price of several good things on a farm.

I. B. HARTWELL.

Wilkinsonville, Mass., April 13, 1869.

PROTECTION TO GAME.—A petition numerously signed is before the Legislature asking that a law may be passed prohibiting the killing of quail or partridges in this Commonwealth for three years. There is no doubt that these birds will become entirely extinct if their wholesale slaughter is not prevented, and now that we are paying attention to stocking our rivers with fish, we should certainly do what we can to prevent the extinction of these birds.



THE GALLOWAY CATTLE.

We have recently given our readers excellent illustrations of several of the families of long-horned and short-horned cattle, and this week we have a fine cut of a no-horned or Galloway cow, as a representative of this favorite Scottish breed.

This race was originated in the low-lands of the south-western part of Scotland and take their name from that district. They were carefully bred and much improved by the Earl of Selkirk for several years, beginning with 1786. Mr. Youatt says there is perhaps no breed of cattle which can be more truly said to be indigenous to the country, and incapable of improvement by any foreign cross, than the Galloways. The crosses which have been made with the finest Short-horn bulls, have not proved satisfactory, and the best breeders now rely on selections of the pure Galloway. They are generally very docile. Even a furious or troublesome bull is very rare.

Mr. Youatt gives the following description of this breed:—"The Galloway cattle are straight and broad in the back, and nearly level from the head to the rump. They are round in the ribs, and also between the shoulders and ribs, and the ribs and the loins. They are broad in the loin, without any large projecting hook bones. In roundness of barrel, and fulness of ribs, they will compare with any breed, and also in the proportion which the loins bear to the hook bones, or protuberances of the ribs. They are long in the quarters and ribs, and deep in the chest. but not broad in the twist. The slightest inspection will show that there is less space, between the hook or hip bones and the ribs, than in most other breeds. They are short in the leg, and moderately fine in the shank bones. They are clean, not fine and slender, but well proportioned in the the neck and chaps; a thin and delicate neck would not correspond with the broad shoulders, deep chest, and close, compact form of the breed. The neck of the Galloway bull is thick, almost to a fault. The head is rather heavy; the eyes are not prominent, and the ears are large, rough, and full of long hairs on the inside. The Galloway is covered with a loose, mellow skin of medium thickness, and which is clothed with long, soft, silky hair. The prevailing and the fashionable color is black—a few are of a dark brindled brown, and still fewer are speckled with white spots, and some of them are of a dun or drab color, perhaps acquired from a cross with the Suffolk breed of cattle. Dark colors are uniformly preferred, from the belief that they indicate hardness of constitution."

In his late work on *American Cattle*, Mr. Allen says that polled or hornless cattle came into this country with some of the early importations, as such have been known here for more than a century past. As they were red, spotted, and of all colors usual among our native cattle, they probably were picked up from the polled herds of Norfolk or Suffolk, in England, where they have abounded for centuries. About the year 1850, some enterprising Scotch

farmers made the first importations of Galloways into the vicinity of Toronto, in Canada West. Their attachment to them in Scotland was too strong to be overlooked or forgotten in their new homes. The cattle possessed certain qualities which they found here in no other race, and with a characteristic love of their native land, as they loved the poetry of Burns, and repeated his songs, they also longed for and sought the cattle of their native hills and heather. There must have been other importations, for in the year 1857, we saw upwards of forty of them exhibited by competing owners at a Provincial agricultural show, at Brantford, and have since met them in equal numbers at other shows in the Province. They were fine cattle—full, round, and comely in form, and in appearance; and taken altogether, fully answered Mr. Youatt's description.

Their lack of horn is thought by some to be a great merit, but though they cannot *hook*, they can and sometimes do *butt* severely, and on that account are regarded by some farmers as more dangerous in a herd than those cattle which have more formidable looking horns, and Mr. Allen says that the safety of him who handles them lies more in their docility of temper and good training than in their inability to inflict injury.

Mr. Youatt says that the milk of the Galloway cows is rich in quality and yields a large proportion of butter, but they are not good milkers.

The above illustration is copied from Mr. Allen's *American Cattle*, and is an accurate portrait of a beautiful young Galloway cow, owned by a gentleman in Canada West.

COL. T. FITCH'S STOCK FARM.—The Norwich, Ct., *Bulletin* gives an account of a visit to the farm of Col. Thomas Fitch, of that city. It is about three-fourths of a mile from the railroad depot, and contains some 100 acres. The land was formerly covered with granite boulders, which have been sunken or removed. He has barn room for 225 head of cattle and about a dozen horses and colts. His herd of cattle consists of thirty thoroughbred Jerseys, thirty Ayrshires, with crosses. Col. F. has been engaged in breeding for more than twelve years. He has tried crossing Alderneys with Devons, Short-horns, Ayrshires, Natives and Madagascars, and has arrived at the conclusion that the milk and butter qualities of all the different breeds are improved by crossing with Alderney males. Nearly all the half-blood Alderneys he has raised are better for dairy purposes than Devons, but the cross of Alderneys and Ayrshires are in his judgement the best cow, in all respects, that he has ever seen or bred. They yield more value in milk and butter, are flush milkers, good size and form, and are easily kept. This cross makes fine working oxen.

The swine family is also well represented there. The famous Seftons, a breed that gets fat in pasture, from the estate of Earl of Sefton, England, the Chester County White, and the cross of the two breeds, are there to be seen in all their native hoggishness.

MASSACHUSETTS AGRICULTURAL COLLEGE.—The Trustees have elected the following officers:—*President*—William Claflin. *Vice-President*—Wm. S. Clark. *Secretary*—Charles L. Flint. *Treasurer*—Nathan Durfee. *Auditor*—D. Waldo Lincoln. *Executive Committee*—Wm. S. Clark of Amherst, Henry Colt of Pittsfield, Wm. B. Washburn of Greenfield, Nathan Durfee of Fall River, and Phineas Stedman of Chicopee.

The Executive Committee was authorized to employ Wm. D. Davis of Warner, N. H., a grandson of Hon. Levi Bartlett, as Superintendent of the College Farm. Mr. Davis has, for the last three years, held the position of Superintendent of the Government Hospital Farm, at Washington, D. C.

CABBAGES.

A correspondent of the *Germantown Telegraph*, who raises cabbages for stock and who prefers pasture land of a light, sandy texture for this crop, gives the following as his process of cultivation:—

When I grow cabbages on pasture ground, I break it up early in the spring, and having rolled and harrowed thoroughly—I strike the land off into furrows eighteen inches apart, and apply the manure—one shovelful to the hills, the hills being eighteen inches apart. The manure is first leveled, then covered with about one inch of fresh, fine soil, and on this the seed is deposited, and covered about one inch in depth. As soon as the plants appear, they receive a dressing of soot, one part; sulphur, one part; gypsum, one part; and wood ashes, sifted, two parts; the ingredients being thorougly mixed, and applied by means of a box with a perforated top. The morning is the most suitable time for the application of this dressing, as the dew serves to retain it on the leaves, and prevents its being blown off by the winds. When the plants are fairly in rough leaf the hills may be thinned, and vacant ones filled up by transplanting from others, and a dressing of slaked lime, one part; wood ashes, four parts; pulverized charcoal, one part; gypsum, one part; and common salt, one part; applied and worked in around the roots. Frequent dressings with the hoe

are more indispensably necessary to the successful development of this vegetable than to any of the other broad-leaved varieties, especially during the earlier periods of its growth.

As a feed for milch cows and young cattle this vegetable is highly esteemed; and as it may be kept through the winter with little trouble, and fed daily, at times when green succulent food is with difficulty obtained, it is difficult to estimate it too highly. Provision should be made for storing it in the immediate vicinity of the barn, or if possible in the cellar which occupies, or which should occupy, its basement, and where it can be protected from the effects of frost. By covering the roots with the soil of the bottom, and placing the cabbages in an upright position, unless the temperature is greatly depressed, considerable additions will be made to the crop in weight, and very little loss result from decay or rot—an evil frequently fatal in its effects upon the cabbage when housed in the ordinary way, and in house cellars, which are generally too confined and warm.

When fed out, the heads and leaves should be finely chopped, and mixed with corn and cob meal, moistened with warm water, and seasoned with a few handfuls of salt.

From the Willamette Farmer.

MY GARDEN.

Now, as the Spring returning,
Sweet with the breath of flowers,
Calls at my open window
And whispers of by-gone hours,
I long for my pleasant garden,
To work in the warm brown earth,
To nourish the wee green children,
And watch for the seedlet's birth;
To breath in the cool of evening
The odors of balm and spice;
For, to dress and keep a garden,
Was the work of Paradise.
And is not this a reason
For the wish we always feel,
To plant in the shining seed-time
Earth's treasures to reveal;
To join in the great procession,
Earth's workers moving on,
And help, though e'er so little,
The hand of the Mighty One!

Salem, Oregon, Feb, 1869. BELLE W. COOK.

NEW YORK STATE FAIR.

The address of the President, Hon. T. H. Faile, at the late annual meeting of this Society, contains many suggestions which we think are important to other societies as well as that of New York. We make a few extracts:—

"The Fair was largely attended, and that without any of the extraneous means, now, unfortunately for the good morals of the people, resorted to for financial success in many of the State and County fairs. No trials of speed, of either running or trotting horses, nor shows, nor games of any kind, have ever been allowed on the New York Agricultural Society's grounds; and in this connection I will not hesitate to express an earnest hope that our Legislature will withdraw all aid from every county society that perverts the funds of the State to such uses. It is a libel upon the intelligence and good sense of the farmers to suppose such things necessary to make a fair attractive or financially successful. The net results show that they will support all fairs where the managers conduct them in accordance with the principles on which our agricultural societies were founded, viz. the diffusion of useful knowledge.

"The exhibition of machinery and agricultural implements, showed in a stronger light than ever before the marvellous inventive genius of our people. The time has passed when mere hand work can make the cultivation of the soil remunerative, and it is only by the use of improved implements that success can be attained.

"In ditching and digging machines there is open a wide and very important field for improvement and invention.

"Surprise was expressed at the last fair that no premium was offered for thoroughbred, in other words, for race horses. The simple truth is, farmers have no use for thoroughbreds, or for those little trotting horses so common at this time, and the breeders of them not only lose money, but also run the risk of spoiling their sons, for it is undeniably true that the racing and trotting of horses, whether at fairs, or on the track, is accompanied by falsehood, trickery, profanity and the excessive use of intoxicating drinks.

"It has been the custom to allow entries to be made on the first day of the fair, often on the second and sometimes on the third, causing great confusion and difficulty in making the arrangements. This year we departed from the custom, and gave notice that machinery and live stock must be entered two weeks before the fair. The Royal Agricultural Show of England last year required entries for machinery and implements to be made ten weeks, and of live stock six weeks before the Fair. The Highland and Agricultural Societies of Scotland closed all entries over six weeks before the fairs.

"I recommend that hereafter all entries except for fruits, flowers and vegetables be closed from two to four weeks prior to the Fair. When the entry is made the entrance fee should be paid, and a description of the animals, machinery and implements furnished for publication in a catalogue, which should be ready when the fair is opened and sold at cost. If the articles were in their place a day or two before the opening, it would give the judges opportunity to make a more thorough and satisfactory examination, especially of machinery and manufactured articles. It would also be an accommodation to the railroads, by which we have always been favored, by not crowding all the business into one or two days."

THE POTATO.

WALTER RALEIGH'S name has long been associated with the history of the introduction of the potato into Europe. It appears, however, that the plant was known to Clusius, a distinguished French botanist, at least thirty-three years before its introduction by Sir Walter. But he is undoubtedly entitled to the credit of encouraging the cultivation and use of the potato, which has proved one of the greatest blessings ever conferred upon man. When cultivated in the virgin soil in this country, from three to four hundred bushels per acre was the common crop. There were certain elements in the soil or climate, or both, that seemed peculiarly favorable to its growth, and the same varieties were often raised upon the same soil for many successive years, without any apparent deterioration in quantity or quality.

But all this is now changed. The average crop of Massachusetts for 1867 was ninety-six bushels per acre, and scarcely any variety can be depended on to yield potatoes of uniformly good quality.

Since the disease that prevailed so extensively twenty or twenty-five years ago, the yield per acre has diminished at least two-thirds. Land that is in such condition that it will produce more corn and grass than it formerly did, will yield but about one-third as many potatoes as it once would. Even when they are apparently healthly and of sufficient size, it is rare that the crop exceeds a hundred bushels, and unless both the soil and season are favorable, the quality is comparatively poor. The most thorough investigation and the most careful experiments and observation have failed to ascertain satisfactorily the cause of the disease, or of the diminished amount of production.

All that can be said is, in a general way, that the potato, like many trees and other vegetables at different periods, has been attacked by an epidemic, and it is to be hoped that it will wear itself out, and that the potato will in time, recover its healthy condition.

In the meantime it has been found by experience that new varieties, for a few years, exhibit the most vigorous growth, and are the most free from disease. Several of these varieties, and especially the earlier ones, have given their cultivators good satisfaction, and encouraged the farmers to hope that some new variety may be found, that will yield as large crops as they formerly raised. Some good varieties have been produced by enterprising and philanthropic individuals. But lately the business seems to have fallen into the hands of unscrupulous speculators, who are thriving upon the credulity of the public. They are resorting to the tactics of the quack medicine men who understand that success depends but little upon the quality of the article, but upon the amount they invest in advertising. The number of new varieties offered to the public, each claiming to be the best, bids fair to keep pace with the new varieties of pills and syrups. Now all this is simply ridiculous, and we have very little sympathy for those who allow themselves to be swindled out of their money by these transparent tricks of speculators.

It is very easy to produce new varieties from the seeds of the potato. In our own experience, fourteen varieties were produced from the seeds of one potato ball, and we have heard of a still greater number. Most of the varieties, it is true, were of no value, but some were good. One or more varieties of good potatoes may be expected from every such experiment, and it is to be hoped that enterprising farmers and gardeners will continue to make them, and carefully note the results. In this way, as old varieties depreciate or run out, new ones will be found to take their place.

The Early Rose, which sold last spring for three dollars a pound, is offered now for seventy-five cents. The reports respecting the quantity and quality of this variety are as various as were the soils upon which it was planted.

Some good may result from the potato fever. Those who pay fancy prices for new varieties will be likely to cultivate them well, and re-

member and record the methods they adopt, as well as the results. One thing seems to be settled already, viz: that one or two eyes in a hill will yield more potatoes to the acre, and those of more uniform size and quality, than whole potatoes or six or eight eyes in a hill. The hills with one or two eyes may be placed nearer together and thus the number of hills increased and the land more fully occupied. This approaches the old Irish method of cultivating potatoes in beds worked fine by the spade, and the sets planted in squares of about one foot. At harvest time the whole bed was filled with tubers. Another thing also seems to be decided by recent experience. Those varieties that make their growth before the summer drought are more certain to give satisfactory results, and to escape the attacks of disease.

As the potato is one of our most important crops, its culture deserves careful study and observation.

LIQUID GRAFTING WAX.—The following will make a wax that can be put on with a a brush, will always be ready for use if kept tightly corked in a bottle, and can be applied to bruises or wounds on trees, or used as a grafting wax, viz:—Melt one pound of rosin over a gentle fire; add an ounce of beef tallow and stir it well; take it from the fire, let it cool down a little and add a table spoonful of spirits of turpentine, and after that about seven ounces of very strong alcohol (95 per cent.) It will be necessary, after putting in the alcohol, to put it on the stove again stirring it constantly, taking great care that the alcohol does not get enflamed. To avoid this, remove the kettle from the stove as soon as the mass, which may have cooled rapidly by the addition of the alcohol, begins to melt. Continue to stir, until the whole mass becomes the consistency of honey. This will be found far better and cheaper than the common shellac preparation used for this purpose.—*Maine Farmer.*

—T. S. Clough states in the *Prairie Farmer*, that he once brined and thus thoroughly cleansed seed wheat for thirty acres. He took the small and inferior grain thus abstracted, and washed again. From this he sowed a very few bushels, the result from which was inferior wheat in both quantity and quality—all the remainder was fine, free from oats and smut, and produced a large yield. He then came to the conclusion that "As ye sow, so shall ye also reap," and if anybody persists in sowing smut and dirt, instead of good, sound, plump grain, they may expect to reap accordingly.

For the New England Farmer.

FARMER BROWN, SOLUS.

BY FRED D. MUZZEY.

I vow! that's tugging pretty tough; whoa Buck, whoa Bright, whoa ho!
I guess we'll stop and breathe a spell, it really seems as though
The farm grew stunnier every year, I've broke two p'ints to-day.
I'm tempted every spring I plough to sell and go away
Out West; but as the summer comes and the old hills get green,
And the rocks are covered up with grass and posies shine between,
And everything's so beautiful, I change my mind, you see,
And say, "I guess I'll keep the farm,—it's good enough for me."

I'm satisfied to walk the ways my sire and grandsire trod,
To breathe the same rough mountain air, and till the same hard sod;
The same Lord made the whole big earth, and He is everywhere,
It aint no matter where I be, he has me in his care.
Some say we should give up the world with all its hopes and fears,
That 'tis at best a dreary place of sighing and of tears,
But Jesus thought 'twas good enough that on the cruel tree
He died for it, and so I guess, it's good enough for me.

And these same folks say God is bad, a weak and cruel God,
That 'tis in anger not in love he lays on us the rod.
And now I tremble when I think that this I almost cried
Six years ago come Tuesday night, when little Benny died.
The little dead face hardened me; what had my baby done?
But I tried hard, and *just* made out to say, "Thy will be done."
God works in mystery, and sometimes 'tis hard the right to see,
But poor old sinner that I am, He's good enough for me.

There's my two daughters, Hattie and Kate, I know they don't wear curls
Of borrowed hair, and put on airs like neighbor Jones' girls;
They never went to boarding school, and don't wear dimmund rings,
Nor kids, nor silks, and velvets, and them Grecian bends and things;
But they're obedient, loving girls, brown birds who work all day,
And yet can sing when evening comes, and join in fun and play.
And John, too, aint a chap for show, but he is frank and free;
An honest, faithful boy, and so he's good enough for me.

And when life seems a stormy sea, and I a hopeless waif,
I've just to think of my old wife, and I feel kinder *safe.*
Just as the Roman Catholics I think must always feel
When they cry out to saints, or to the Virgin Mary kneel;
For it seems as though her soul 'tween me and God in Paradise
Must make even stains like mine seem somewhat dimmer in His eyes.
And yet she 's neither young nor handsome as she used to be;
But bless her pure and peaceful face, she 's good enough for me.

And discontent is wicked, for whatever can it be
But saying "What my God has made aint good enough for me?"
Such thoughts are impious; what are we that we should dare to say,
"This thing is wrong?" as if we could have shown a better way.
Well! moralizing here may help to keep a fellow sound,
But 't wont help on the Spring's work, nor plough the stunny ground.
Get up, old chaps, you're getting old and lazy too. I see,
But I am too, and so I guess, you're good enough for me.

Middlebury, Vt., 1869.

For the New England Farmer.

A RUN-DOWN FARM IMPROVED.

AGRICULTURAL PAPERS, FAIRS AND FARMERS' CLUBS,—WHAT THEY DID.

As helping to answer the queries whether "book farming" pays, whether fairs do any good and whether it is worth the while to sustain Farmers' Clubs, I submit the following personal history, at the risk of a charge of egotism.

In June, 1853, I returned after an absence of nine years at the "West," and came in possession of the homestead which my father had occupied about fifty years. With the first season's crops I was able to winter one cow, two yearling colts, one horse and one mare a part of the winter, by buying 100 bushels of oats; and raising for the family about ten bushels of wheat, twenty bushels of corn, twenty-five bushels of potatoes, ten bushels of apples, and some garden sauce, with nothing whatever to sell, but a part of a veal calf! Being myself a mechanic, without agricultural taste or knowledge, and fully occupied in my shop, hired help took care of the farm the first five years.

About 1858 I received a gentle hint from a brother in Wisconsin, not to let the old homestead "run down!" and supposing the suggestion was not entirely original with him, it took, and I immediately began to be interested in farming, out of regard to the family honor, or some other reason.

The next season, finding the farming "didn't pay," as heretofore practiced, I commenced taking an agricultural paper, the *Country Gentleman*, and began inquiring of my neighbors how I had better do with this and that piece of land, and thinking a good deal upon the subject while engaged in my shop.

Reading and thinking soon led me to acting, and more time was spent in looking over the farm, planning improvements and seeing that labor was judiciously applied. Soon my agricultural reading was increased by the addition of the NEW ENGLAND FARMER, monthly, and my farming interest was stimulated still more. I began to be more saving of manure and everything that would aid in producing crops, while much satisfaction was experienced in seeing that crops were improving. Another paper the *Western Rural*, making three, was now subscribed for; mechanical business began to lose its interest, the *Scientific American* was stopped; the fairs which I had attended several years as a mechanic, now began to have an increased interest to me as a *farmer*, as I examined the agricultural specimens on exhibition, and listened to the evening discussions among farmers.

In 1861, I began to think about trying to get up a Farmer's Club, but could not overcome the obstacles till February, 1862, when one was organized, which by its success till this time has contributed not a little to the benefit of my farming.

Three agricultural papers not proving enough, the *Mirror and Farmer*, *Rural American*, and *New England Homestead* were added, which with six other regular periodicals, most of which have agricultural reading, have each contributed somewhat to the improvement of the old homestead, until it now produces annually from three to four times the value it did eight or ten years ago; having increased in productiveness almost in exact ratio to the annual increase of the number of agricultural papers taken, and consequent increase in agricultural reading, writing and talking!

Instead of being able to spare and sell off the premises only a part of a veal calf, and perhaps a few eggs annually, as during the first years, we were able some four years ago, to dispose of farm proceeds to the amount of about five hundred dollars, with a constant increase since, until the past year it has amounted to about twice that sum.

So much for the means of agricultural grace alluded to, and which are within the reach of hundreds of farmers who will plod on the old beaten track their fathers trod, complaining that "*farming don't pay* since the soil has got so worn out."

Brother farmers, you are mistaken. The soil is not worn out, and never will wear out, if you treat it civilly, until the "elements melt with fervent heat." If you make use of the same skill, tact, energy, wide-awake-fulness and industry, which ensures success in any and every other kind of business, you will find farming will "pay" better than all of them put together, while you experience daily and constantly a kind and degree of *independence* that no other calling affords. R. N.

Randolph, Vt., March, 1868.

For the New England Farmer.

A MINISTER'S GARDEN.

Some few months since I gave, through the columns of the FARMER, somewhat in general, my experience in relation to the condition of the various gardens that had fallen to my lot to subdue and cultivate. I now propose to speak somewhat in detail of one that I had the care of four years, to show what advantage can be derived from the careful and thorough culture of a garden.

I do this more for the encouragement of professional men, than of farmers; for in many instances their incomes are inadequate to meet their own necessary expenses and those of their families. Especially it is so with many of our country clergymen, and belonging to that class, I write for their benefit.

The garden of which I now propose to say a few words in its behalf, was about five rods long by two and one-half broad, of a moist, clayey soil; hard to cultivate, but capable,

with judicious treatment, of producing the finest crops. When it came into my possession it looked like some potato patches I have seen, after the crop has been harvested in the autumn, as it was strewed with potato vines and the stalks of rank, dead weeds. It was also thickly covered with stones of all sizes, from those as large as two could lift, down to those not larger than a hen's egg, and any conceivable number of tufts of grass.

As it was late in the season when I first took possession of it, I did but little more the first year than remove what stones I conveniently could with my wheelbarrow, and bury the scattering vines and weeds, turn over with spade or hoe the tufts of grass, and take the best care I could of the various vegetables that were planted; being careful not to let any weeds choke the growing crops or go to seed. In the autumn I was well rewarded for all my labor.

The second year I had it ploughed in its season, and as I had removed the previous autumn all the rubbish, there was nothing to obstruct the plough but the remaining stones. These I removed and kept the ground in as neat and tidy a manner as hoe and spade and rake would permit, and I was rewarded with all the vegetables of various kinds that I needed for the use of my family,—then consisting of five persons,—for the year, and some in the summer that I sent to my neighbors.

The third year, instead of having it ploughed, I spaded the whole with my own hands, removed every stone I could find of the size of a large bullet, raked in what manure I had, and then planted it with the various kinds of vegetables, in drills, using guano for a fertilizer, with the exception of poll beans, which I planted in hills, and this year I not only had enough of all kinds of vegetables for my family, but sold to my neighbors to the amount of $15 or more. Besides this, the first year the asparagus bed and currant bushes were of no use, as they were so completely grown up to grass and weeds that they did not produce any fruit. I thoroughly cleaned and cultivated both, and the former yielded all that we wanted for our own table, and the latter were loaded with large and beautiful berries, which were a real luxury in their season.

Thus you see, Mr. Editor, that a little land well cared for, is not only capable of yielding large returns, but will become a real source of pleasure and profit to every faithful steward of the earth. And when the work is done, as it always should be, with our own hands, it not only helps to enlarge the measure of our income,—making us more independent of our circumstances, but adds greatly to the real pleasures of life, by furnishing a suitable supply of good and wholesome food and increasing the measure of our health. This latter blessing is one of no small consequence to all classes, but it is of immense advantage to the clergyman. Health is not an unpurchased blessing, but one that may be had for its own price. Pay the price and it is ours.

S. BARKER.

Bernardston, Mass., March, 1869.

OPINIONS OF A MARKET GARDENER.

We have received the following valuable communication from C. Spratt, Market Gardener of this city, the substance of which we present as follows:—

"Noticing the remarks on onion culture in a recent copy of the *Herald*, for the benefit of onion growers, I would state that the sooner onions are planted, the better. The best bed of onions I ever saw in this city, was planted the 28th of March. Potato onions are the best and surest crop, especially for small gardens, as they are fit for the table the year round, and are also excellent keepers.

Early peas and potatoes should be planted, if possible, at the same time. Those who have any doubt as to the expediency of doing as recommended, should make the experiment.

Allow me to say that all who have not tried sprouting potatoes will be agreeably surprised to find the difference which will be made by doing so. They should be sprouted in thin layers in boxes or crates, and should be exposed to daylight, in order that the sprouts may be green and tough. Sprinkling milk-warm water on them three times a week, improves their growth. They should be started first in a dark room, then placed in thin layers as recommended. When the sprouts are one inch long, then they are ready to expose to daylight. At planting time, carry them carefully into the garden, in the boxes or crates in which they have been sprouted. Just before they peep through the earth they should be covered with straw or long manure.—*Utica Herald.*

EXTRACTS AND REPLIES.

DISSOLVING BONES IN ASHES.

I have a small quantity of old bones (say 1000 pounds) which I should like to convert into manure if I knew of any way of doing so cheaply, or would it be better for me to sell them at one and a half cents per pound, and buy phosphate of lime. Can some of your subscribers answer?

A SUBSCRIBER.

New Bedford, Mass., April, 1869.

REMARKS.—While some of our subscribers are preparing an answer to the foregoing queries from their own experience, we copy from Dr. Nichol's little book on the *Chemistry of the Farm and the Sea* the following directions for preparing bones by the employment of wood ashes, lime and sal-soda.

"Take one hundred pounds, beaten into as small fragments as possible, pack them in a tight cask or box with one hundred pounds of good wood ashes. Mix with the ashes, before packing, twenty-five pounds of slaked lime, and twelve pounds sal-soda, powdered fine. It will require about twenty gallons of water to saturate the mass,

but more may be added from time to time to maintain moisture. In two or three weeks the bones will be broken down completely, and the whole may be turned out upon a floor, and mixed with two bushels of dry peat or good soil, and after drying it is fit for use. This mixture, embracing nearly or quite all the great essentials of plant food, is one which in its application will afford most prompt and satisfactory results. Its production cannot be too highly recommended."

Directions have frequently been given for the use of sulphuric acid, but this is dangerous stuff for people to meddle with who are not experienced in its use. Even the simple process recommended by Dr. Nichols may require some skill and practice. That "everything is a trade," is a fact that ought to be remembered by all who undertake to do anything from the directions of others. With the most particular directions how to chop off a log, what awkward work any one would make on the first attempt who had never swung an axe. It is a simple operation to put up a leach, but how many fail in getting lye fit to make soap. So in dissolving bones, practice makes perfect; and we might not lose our confidence in the recommendation of Dr. Nichols, though you should fail of perfect success on the first attempt. You will find the sledge hammering of a thousand pounds of bone no small job. Where one can wait six months or so for an operation, whole bones are sometimes treated with ashes as above. In such case if the larger ones are not sufficiently softened, they are raked out, and submitted to the same process again.

SUPERPHOSPHATE FOR POTATOES.

I would like to inquire of you or through your paper, the best method of planting Early Rose potatoes with Bradley's Phosphate.

East Hardwick, Vt., 1869. A YOUNG FARMER.

REMARKS.—In his circular, Mr. Bradley directs to apply for corn and potatoes "a table-spoonful of phosphate to each hill, thoroughly mix it with the soil, then drop the seed. This will require about 250 pounds to the acre." If the land receives no other manure he recommends harrowing in perhaps an equal or a little larger amount, sown broadcast, previous to planting.

SHEEP PULLING WOOL.

What makes my sheep eat wool? None but my ewe sheep do it. They have good hay, shorts and meal. I keep salt by them, and plenty of pine limbs. KEARSARGE.

East Andover, N. H., April 16, 1869.

REMARKS.—Sheep that have the itch or scab will sometimes strip themselves bare by rubbing and biting to relieve the intolerable itching produced by the disease. But sheep often bite or pull out wool when free from this disease. About three years ago we published a valuable article upon this subject written by Mr. E. R. Shedd, of Windsor, Vt. From two cases of wool pulling in his own flock, he concluded it was in consequence of a change from poor to good keeping, causing irritation and itching upon the skin, and that the animal pulled out the wool to reach the irritated spots. He also says that sheep coming to the barn in good condition and fed at once a liberal supply of grain will occasionally exhibit the same symptoms. The remedy which he has used with perfect success, is to take unguentum and hog's lard in equal proportions, mixed, and opening the wool at its ragged points, take a little upon the end of the finger and apply it upon the skin, rubbing it in thoroughly, being careful not to leave any of it upon the ends of the wool. This he recommended as a sure cure, if faithfully applied.

LICE ON CATTLE.

I would like to know the best method for killing lice on cattle. One of my calves is troubled very badly. A neighbor told me to try a little kerosene. I did so, and the result was the hair came off where I put the fluid.

A YOUNG SUBSCRIBER.

Dover, N. H., April 9, 1869.

REMARKS.—In the back numbers of the FARMER a great many remedies have been given. Mr. J. Wilkinson, of Baltimore, Md., recommends in the *Practical Farmer* the application of hard wood ashes with a sieve to the animal, from head to tail, applying two to three quarts. The animal should be kept from being wet a few days, after which if there is a warm rain let it be well drenched. As soon as the hair is dry apply ashes as before. A third application is generally sufficient, but never knew the fourth to fail. About four days should intervene between the ashings. The nits hatch in six to eight days, according to their position on the animal. The stable should be carefully cleaned, and the floor as well as walls whitewashed. Fat cattle seldom have lice. An ointment of one quart of lard melted with two ounces of yellow snuff rubbed on the back from head to tail, and around the neck and ears, has been found successful. Others rely on fine dust gathered in summer from the roads, or fine brick dust, feeding the animals meanwhile a little sulphur. "More depends on the nurse than on the doctor," in the stable as well as in the sick chamber.

BEANS AND PUMPKINS WITH CORN.

As you ask farmers to answer the questions of "Nat" in the FARMER of April 3, I offer the results of my experience upon the subject. I am about 70 years old, have worked on many farms in Massachusetts and Vermont, and in my travels have seen considerable of farming in Connecticut and New Hampshire. As I have a farm of only sixteen acres, I am able to till it pretty much as I please, and work for my neighbors about half the season. Consequently I am familiar with both good and poor management. From this experience I wish to tell "Nat" that I dont think pumpkins very profitable, though I raise a few to stew for pies and to boil for the pigs. But I do think it is profitable to raise beans with corn. For corn I plough my land deep, spread on a good coat of manure, which I plough under with a furrow of some three or four inches. I drop three or four

kernels of corn to each hill, putting three beans on the west side of each hill. I run the cultivator both ways three or four times; the last time, when the corn is fifteen or more inches high, make very flat hills, keeping the ground nearly level. I never fail of a good crop of corn and beans. I consider beets better than potatoes, and worth three or four times as much as turnips. H.

Framingham, Mass., April 8, 1869.

HARD AND SOFT WOOD ASHES.

What is the comparative value of hard and soft wood ashes? or, in other words, what can a farmer afford to pay for soft wood ashes to apply to his land, the ashes of hard wood being difficult to obtain in large quantities? What is the best method of applying to a clay loam soil, where the chief object is to increase the amount of hay?

Lewiston, Me., 1869. SEARS.

REMARKS.—In an analysis made by M. Saussure, Jr., who analyzed some fifteen kinds of wood and bark, we find that 1000 parts of the dry wood of a young oak, produced two parts of ashes;

1000 parts of	dry	oak	wood	produced	2	parts of ashes.
"	"	popular	"	"	8	" "
"	"	horse chestnut,		"	35	" "
"	"	pine wood,		"	15	" "

The ashes of the wood, however, vary considerably in the soluble salts which they contain. We have supposed that the ashes of hard wood were heavier in measure than those of the soft woods, but that, pound for pound, there would be little difference in the amount of soluble salts which each would contain.

In an analysis by Sir H. Davy it is stated that 10,000 parts of the poplar gave seven of parts potashes; beech, twelve parts; oak, fifteen; elm, thirty-nine; grape vine, fifty-five. We think that clear wood ashes is richly worth twenty-five cents per bushel, on a large portion of our lands, but especially those which have been for some years under cultivation. Spread them broadcast in a still day.

BRICK AND CEMENT FOR MANURE TANKS.

I see that in your last issue, Mr. P. C. True, of Pittsfield, N. H., is preparing to construct a water-tight cellar of bricks and cement. I suppose, from his manner of writing, that he intends to build it under his barn. Now I believe a water-tight cellar, or at least a water-tight vat or tank of sufficient capacity to hold all the droppings from the stable, must be a paying investment for any farmer. But is brick a good material of which to construct it? I ask for information, intending yet to construct one myself. Will not the liquids percolate through them? Are they not extensively used for filters? I am told that stable liquids will destroy our common cement. Can any one give definite information regarding this? Is the Rosendale cement stronger or superior to the common cement?

D. L. TOLMAN.

Marlboro' Depot, N. H., March 30, 1869.

REMARKS.—The bricks are used, we suppose, to keep *the form* of the cistern, and the cement to prevent the water from passing out. Water will go through the common soft brick quite readily. Hard, burnt brick would be better than soft ones; that is, would be more firm and durable. Many cisterns are constructed by cementing directly upon the earth, and answer a good purpose, but they are liable to be thrown out of shape by frost or by heavy rains.

A WORMY AND UNWELL COLT.

I have a very valuable colt, four years old, that has been troubled for the two past winters with a worm of a reddish color, about one-half inch long. I have fed her about a table spoonful of copperas every other day, which has brought away many worms, but yet she keeps running down and has a very poor appetite. She urinates often and but little at a time. As there is no veterinary surgeon in our parts, I ask advice of the readers of the FARMER and assure them that any suggestions will be thankfully received.

FRANK W. BARDWELL.

Alden, McHenry Co., Ill., April 3, 1869.

REMARKS.—From your description, we are inclined to the opinion that the worms in your horse are rather the result than the cause of the illness. Intestinal worms are natural to most kinds of animals, but any weakness of the digestive system favors their undue increase. We should fear inflammation or other disease of the kidneys or bladder, which may have been aggravated by the doses of copperas administered. In the absence of a veterinary surgeon we would advise you to consult your family physician. We solicit the opinion of the readers of the FARMER on the case presented by Mr. Bardwell.

HAY, CATTLE, WHEAT, POTATOES, &C., IN STOWE, VERMONT.

Stowe is ten miles from Waterbury, on the Vermont Central Railroad, and twenty-two from Montpelier. As a summer resort it is not surpassed by any town in the State in respect to its mountain scenery, having on its western boundary the highest peak of the Green Mountains.

As an agricultural town it is one of the best in Lamoille County, having a rich, productive soil. Farms have nearly doubled in price in the last five years, ranging from $25 to $100 per acre, including buildings. The hay crop has the preference here, as cattle and butter are the chief articles of export. Farmers who calculated last fall on the same bulk of hay keeping as much stock as usual, have found themselves greatly mistaken. There has been much complaint of fodder not spending well, and as far as my observation goes stock is looking rather poor in flesh this spring.

Some are looking for an early spring, which would be hailed with joy by many who are short of hay, which is now selling at $20 per ton, corn $1.40 per bushel. Wheat has been more extensively sown for the last three years, and fair crops have been realized. I know of one instance where twenty-two bushels were threshed from one bushel of sowing. Farmers find that they can raise their own wheat, since the high prices demanded for flour have driven them to it. No crop leaves the soil in a better condition for grass.

Raising potatoes for starch is rather playing out here. One starch factory which a few years ago received as many as eighteen thousand bushels in a single season is now ready to fall to pieces, having nothing to do. Some farms have been so badly run out by raising potatoes, that it will take years of hard labor to bring them back to their former state of productiveness. To test the effect of potatoes on land, plant an acre of corn and an acre of potatoes, side by side, giving each the same dressing and care, then stock both down in the fall or spring and note the difference in the hay crop.

Not much of the fertilizers which flood the mar-

ket are used in this place, except Bradley's superphosphate of lime. This will be quite largely used this spring, and mostly on corn. Last season it was used by several, and gave general satisfaction. Some planted corn without any dressing except a little phosphate in the hill, and had good crops. Others mixed ashes and phosphate together—two parts of ashes to one of phosphate—and put a table spoonful in a hill, after the land had received a fair dressing of manure, and thought it paid well.

Stowe, Vt., April 18, 1869. S. W.

HEN MANURE.

Will you or some of your contributors inform me as to the best way of preparing and using hen manure. I have say fifty bushels which I intend to mix with fifteen loads, thirty-five bushels each, of meadow muck. Shall I mix ashes or lime or both so as to evolve the ammonia powerfully, before applying the manure? or shall I mix the ashes and lime, one or both, and plaster to fix the ammonia? or shall I simply mix the manure and muck with just water enough to moisten it?

Berlin, Vt., 1869. S. F. Nye.

I wish to plant an acre of corn and have about four barrels of good hen manure, but no stable manure. What shall I mix with the hen droppings?

Northboro', Mass., 1869. A Young Farmer.

Remarks.—We should not add either ashes or lime to the manure, but apply them to the land separately. Many think ashes neutralize the valuable portions of the manure. Muck, charcoal dust, woods or other soil or earth are good diffusors and absorbents. The hen manure, at least, should be moistened with water, to which some book farmers add a little sulphuric acid. It should be well mixed with the muck, &c., and be shoveled over several times after mixing. Broadcast the ashes and lime and harrow in. We think it is well to add muck to the droppings from the roost frequently, and remove the whole often, both for the health of the hens and the economy of the manure.

USE FOR AIR-SLACKED LIME.

I have a barrel or more of air-slacked lime; also a small lawn, a fruit garden, and small patch for corn and beans, and to feed these a pile of good compost. What is the best use I can put the lime to?

Also, what is the sweetest kind of sweet corn?

Arlington, Mass., March 31, 1869. C.

Remarks.—Spread the lime broadcast over the garden, after it is ploughed, and rake it in. It will have an excellent effect there. It is just what old gardens often need.

A GOOD COW.—BLEEDING OLD CATTLE.

I see on page 47 of the Monthly Farmer that Luther Stanley of Springvale, Me., has a native cow from the milk of which in seven days, eleven pounds of butter were made. I have a cow five years old last spring, that dropped her calf March 26, and in six days from the first Monday in June we made from her milk alone thirteen and one-half pounds of butter. On the fourth of December, when she was seven months on the way to come in again, she gave five quarts of milk, and January the twelfth she gave one and three-fourths quarts.

In your remarks on friend Jameson's visit in Suncook Valley, you ask what is the practice of farmers in relation to bleeding their cattle. My practice is to let my young ones keep all they have, but for an old one that is to be fatted, whether cow or ox, the very best thing that can be done for them when first turned to pasture, is to bleed them smartly. A few years ago I bought a pair of large, old oxen to work a few weeks and then turn out to fatten. They were sent to pasture the last of May, and were very poor. I sent word to the man that had the care of the pasture to have them bled in a few days. But it happened by some misunderstanding that they were bled by two different men. I was fearful that too much blood had been taken; but they throve remarkably well, and I sold them for beef in July, and they went to Brighton.

Fitchburg, Mass., 1869. I. B. W.

SUPERPHOSPHATE AND ASHES.

Last spring I tried an experiment with a mixture, in equal parts, of Bradley's Superphosphate and ashes on a piece of worn out sandy soil, that was considered almost worthless, and which had not been manured for years. On about half an acre planted with Jackson White potatoes I put a spoonful of the mixture in each hill, and raised 70 bushels of as good potatoes as I ever saw, and which are as good now as they were last fall. I also tried the mixture on a few rows of corn by the side of the potatoes with equally good results. I do not claim that I raised great crops on this land, but considering the nature of the soil, I think I got well paid for the experiment. John Savage.

East Haverhill, N. H., April 12, 1869.

Remarks.—This experiment would have been more satisfactory if a portion of the field had been planted without any fertilizer, a portion with the ashes alone, and a portion with the superphosphate alone.

SUGAR MAKING.

Notwithstanding the numerous predictions to the contrary, the season has been a very good one for making maple sugar. Several persons in this vicinity have made from 800 to 1000 pounds, besides a considerable quantity of molasses.

One of my neighbors made 736 pounds in four days and nights, and burned only three cords of wood and that of rather a poor quality. He uses two sheet-iron pans, one as a heater, and the other for boiling. He cuts his wood about two feet to two and one-half feet long, and keeps his fire at the mouth of the arch. Some snow banks still remain by the side of fences. Granite.

Bloomfield, C. W., 4th mo. 20th, 1869.

BURNT AND RAW BONES FOR HENS.

Will it pay to buy ground bone at 4½ cents per pound to feed to hens, the object being the production of eggs? What is the difference in value between burnt or calcined and raw bones to feed as above. S. F. Nye.

Berlin, Vt., April, 1869.

Remarks.—We think it will pay, if you cannot get them cheaper. Much is destroyed by burning bones, still hens eat them with avidity. We should not like to have our steak "calcined," and we think the gelatine, &c., in raw bones is valuable for hens.

CRACKING UP NEW THINGS.

I think friend Smith of Barre, Vt., asks a silly question about agricultural papers noticing new things. That is one of the best features of a newspaper. Would he prohibit people from advertising what they have to sell, or is he obliged to believe

all they say? For one, I don't think the editor responsible for all the noise they make. I like to know what is going on, and to keep posted on things new and old. Others like your Extracts and Replies; and I am sorry that he is not suited. The more farmers write the better. They, and not the editor, are responsible for what they say. I am a constant reader of the FARMER, and have been for a number of years, and if any one has anything new to say, I hope he will out with it. The more we differ the more we shall learn. That would be a dull paper in which no difference of opinion or expression was allowed. Dont you think so, Mr. Smith? B. L.

Framingham, Mass., April 20, 1869.

TAPE WORMS IN SHEEP.

I would like to inquire of you or some of your correspondents the cause, symptoms, prevention and cure of the tape worm in sheep? I have lost several sheep this winter, one of which discharged a large worm several feet in length. Perhaps some of the others might have died from the same cause, but I did not make examination, owing to my ignorance of anything of the kind. I have recently learned that one of my townsmen has lost several from a choice flock, some of which had tape worms ten or even twenty feet in length. Is not this something uncommon? SUBSCRIBER.

Grantham, N. H., April 22, 1869.

REMARKS.—Mr. Randall says in the *Practical Shepherd* that he has never heard of but a single case of worms proving injurious in the intestines of sheep in this country. He however cites from Mr. Spooner a case in England where some fifty lambs laboring under a violent diarrhœa, were found to have large numbers of tape-worms—*Tænia plicata*—and several large round worms. A total change in the diet was made at once, and the following medicine given:—castor oil one ounce; powdered opium three grains; starch one ounce; boiling water sufficient to make a draught. Thin starch was given night and morning. The lambs improved. After administering this medicine four or five days a stimulant was given to destroy the parasites: linseed oil, two ounces; oil of turpentine four drachms. One dose only was given to some of them, others required two, and a few had three or four in the course of the following month, and then all were well. So much for book doctoring of wormy sheep. Who will help "Subscriber" to more practical information? The dictionary defines tape-worm as a "broad, flat, many pointed worm, often many feet in length." Does that correspond with those found in the sheep in Grantham? The books say that when the eggs of the tape worm are swallowed by the hog or other animal they hatch out and, like the *trichina*, find their way into the muscles, where they become cists or "measles." Then when these cists or measles are taken into the stomach they become the real tape worm, which sometimes attains the enormous length of 100 feet. We published last year, page 133 Monthly FARMER, and weekly issue of January 25, a statement by an Ohio farmer that on opening the intestines of one sheep that had died of what was supposed to be the pale disease, he found a worm perhaps one-third of an inch wide, with points about an eight of an inch in length, but which came apart so easily that he could not measure it, but supposed it was nearly forty feet in length. It was of a whitish color, slightly yellow. The part of the worm forward terminated in a point, and was round for perhaps fifteen or twenty inches. Several of his neighbors had also found similar worms in their sheep.

RAISING CALVES.

Almost every farmer has a way of his own for raising calves, and no doubt thinks it the best—at least I do mine—for I have tried all ways but feeding them hay tea.

If I can manage to find the calf before it has sucked, and I generally do, I take it away from the cow because, in the first place, the cow does not make half the fuss she would if the calf were to suck a week or so. I have cows seven or eight years old that never suckled a calf, and they make no fuss to speak of. In the next place the calf learns to drink quicker and better. I let it get quite hungry, then take some milk in a dish and with my finger in its mouth, put the calf's nose to the milk; but as soon as its nose is in the milk I withdraw my finger and it will soon drink. I have had them drink without further trouble by holding the dish to their mouth, so that the milk would touch their nose. In two or three weeks I turn them with my cows, and as they know nothing about sucking, and as the cow would not allow them to do so if they would, I have no trouble in letting them go to pasture together.

I agree with Mr. Hartwell in what he said in the FARMER of April 13, as to the milk, but as to grass I do not. I do not see why grass should be withheld from a calf more than from a colt or lamb. All farmers know that grass is necessary to make young animals grow, unless they have plenty of milk or meal.

I think new milk the cheapest, although it seems to cost quite a sum to raise calves on new milk when butter is forty cents a pound; but it does not cost so much to winter calves thus fed as it does those that are raised on skim milk. New milk calves do not stop growing when weaned; mine seem hardly to know when they are weaned, as when they are three or four months old I feed less every day, finally drop the morning mess, and feed them at night, only, for a few days. In that way they have a good appetite for grass and do well.

About three years ago a townsman happened at my place when my cows came from pasture at night. "Why," said he, "do you let your calves suck?" I told him my method of raising calves. The next year he told me that the information I gave him was worth fifteen dollars, as he raised five calves with the least trouble he ever had.

If these lines benefit any one I shall be satisfied, though it is quite a task for me to write. I see Mr. Hartwell is down on the swine, but I like good pork. C. F. LINCOLN.

Woodstock, Vt., April 26, 1869.

"CRACKING UP NEW THINGS."

As to your remarks on my inquiries of March 14, I have but a few words to say. I do not know as you could do any different than you do in regard to "new things." But it does seem rather hard for honest farmers to be so unmercifully swindled out of their hard earned money by designing men, who live and get rich on the sweat of the brows of somebody else. No class of men are so often humbugged and swindled as farmers, who are often induced to purchase by what they read in the papers about great labor saving machines, or some new kind of seed which is of inestimable

value. This kind of swindle has run so high within a few years past, that I think it is the duty not only of *editors*, but of farmers generally, to caution the public against purchasing new things, till they have some proof that they are what they are represented to be. If this kind of humbuggery is continued it will soon be hard work to introduce anything new, however valuable it may be.

Barre, Vt., April 20, 1869. A. J. S.

REMARKS.—We regret as sincerely as our correspondent does that our efforts to exclude fraud and humbuggery from our columns are not more successful. But from what department of government, from what association of men, from what town or neighborhood, even, are they successfully excluded? We thank our correspondent for his suggestions, and we invite him and all other farmers to use our columns for the exposure of swindlers, whether in new things or old, great ones or small ones. Give the blood thirsty leeches no peace.

BROOM CORN.

Will you give to the public as soon as may be, through your paper, a chapter on the *modern* mode of raising broom corn. All the particulars about the crop, so that a person who has never raised any may know how to proceed to insure a good crop, in a favorable season. Q. C. RICH.

Shoreham, Vt., April 26, 1868.

REMARKS.—Mr. Charles Woodman of Livingston county, N. Y., wrote an article on this subject which was published last year in the *Country Gentleman*. He has raised from 150 to 250 acres a year regularly for thirteen years. The outlays in the busines are so great that he would not advise any one to go into raising it, unless he intends to keep it up for ten years at least. It requires a rich alluvial soil, free from stones. It is very fluctuating as to price. He had sold it as low as $100 per ton, and as high as $350. He thinks the net profits on the crop in the Genesee Valley are about the same as from Indian corn, or a little better. He thinks it can be raised at the West and South cheaper than in Central New York. He ploughs the ground "all he can" the fall before,—turning in the stalks, and in the spring puts it into thoroughly good order with the wheel cultivator or gang plough, and by the subsequent use of the harrow, "so as to make it very nice." It is then rolled with a light roller, after which a marker follows, having four pins, and thus marking off four rows, three feet apart. He then says:—

"There are three planters hitched to this marker, so that three boys, one man and a horse will plant fifteen acres per day. My machines drop once in eight inches, from eight to ten seeds in a place, so that it makes almost a continuous row. One bushel of seed will plant ten acres. The seed has to be well chopped and fitted for planting; it chops away nearly one-half. I begin to hoe as soon as I can trace the rows, and use the scraper, which throws the dirt in the center of the row; then the men hoe backward, only on one side of the row at a time, drawing the earth from the corn. As soon as three or four days, I put on the roller, and roll down the ridge, and then I follow with a light cultivator throwing the dirt a very little among the corn. The next week go through again, throwing it a little more against the corn. I keep my horses in it until it is as high as five or six feet; I then put in the hiller, and pack the dirt hard against the corn, and it is done until harvest time. At harvest, the stalks are broken over about six feet high; three rows are cut and laid in one, so that the horses straddle the row, and we can load upon each side of the wagon. The wagon boxes are fifteen feet long and three feet high. When drawn to the barn, it is sorted into handfuls by women; then scraped in the cylinders, and carried into sheds and laid on poles about four inches thick, to dry. When dry, I take it down and press it into bales of two hundred pounds and up to two hundred and fifty, and it is ready for the market. It is fair corn when three acres give one ton of brush. It takes about two and a half days work per acre to hoe it, and three days work to cut it."

PUMPKINS ARE PROFITABLE.

In reply to the question of "Nat," about pumpkins being profitable, I would say, procure seeds of a good quality, and from a different locality,—for like all other vegetables, pumpkins need a change of locality,—then after having planted the field of corn go over it with the pumpkin seeds and put one or two seeds in one hill out of each four; and, near the border or edge of the field, in every other hill. Those on the outer rows, by running out where they will receive more sun and air, will do the best and may be planted more thickly. Not only in the corn field, but also in the "potato patch," can good pumpkins be raised by planting them near the edge or in the outside row, or anywhere in the field, by giving to each vine the space allowed to a potato hill. They must be looked to occasionally and the bugs destroyed, remembering to nip the ends of the vines after well "set." If the season is favorable, and these directions followed, I think that "Nat" or any other farmer will find that it is profitable to raise pumpkins with corn.

E. W.

East Westmoreland, N. H., March 5, 1869.

RAISING CORN IN SOUTHERN MICHIGAN.

Brother farmers, as it is getting time to look round and see how much and what crops we shall put in this season, I will tell you how we raise corn in southern Michigan, and what mine did last season. We turn over the soil in March and April. We do not use any manure, as most of the farmers think it worthless, or too much work to haul it out. We mark the rows four feet each way, and plant from the first to the fifteenth of May. As soon as we can follow the rows, take an A harrow made for the purpose, with handles somewhat like those of a plough, put on two horses and go through both ways, and with a little practice we can run it very close to the rows. The object of putting on two horses is to use a heavy harrow, which by taking out the front tooth will go astride of one row, and thus cultivate two rows at once. When the corn is about eighteen inches high, take a double shovel plough, which throws the soil to the hills, doing all the hilling necessary, and killing the weeds, if there are any, entirely. Last fall, when harvesting my corn, I measured off one acre of a twenty-acre field as near an average of the whole as I could, and I got 98½ bushels sound corn, beside the soft corn. A part of the field was worked but once. I intend to keep an account of a ten-acre field this season, and report this fall what it costs me by the bushel. We practice rotation in this section: first corn, then peas, then wheat, and stock with clover invariably.

L. M. LRIGGS.

Hudson, Michigan, April 3, 1869.

NORTH CORNWALL, CONN., FARMERS' CLUB.

Twenty-five years since, the farmers of North Cornwall, Conn., organized a Farmers' Club, which for the first two winters was held in the district schoolhouses. Afterwards it was held in the houses of its members, and then not only the farmers themselves, but their wives and sons and daughters were present at these meetings.

A few incidents in the history of this society will, I have no doubt, be of interest to some of the readers of the NEW ENGLAND FARMER. The first proposition for a Connecticut State Agricultural Society was made in this Club. A committee was appointed to present the subject to the Litchfield County Agricultural Society and request their aid.

After the proposition was made, the Litchfield Society appointed a committee to confer with other county societies and request their co-operation. Most of these societies were found ready to co-operate, and in due time the State Society was organized. The member who made this proposition, Mr. T. L. Hart, was successful in obtaining the four first premiums offered by the society on cheese, amounting to thirty-two dollars.

Another proposition was made and a vote passed by this club, that each member of the club should set out in the highway at least five shade trees each year, until his highway was filled with good thrifty young trees. The member who made this proposition has his highway nearly filled with about two hundred trees, all growing and thrifty. Other members have set out in numbers varying from fourteen to fifty or more. Would that all farmers would follow this example.

At a late meeting the club passed a vote to celebrate its twenty-fifth anniversary, or in modern phrase, have a sort of silver wedding. It was arranged that this meeting should be held at the house of Mr. T. S. Gold, its Secretary. About one hundred and fifty members and invited guests were in attendance, and after mutual congratulations and introductions, the meeting was called to order, and after a review of the history of the club by its secretary, the members and guests sat down to a most enjoyable repast provided by the society. After the repast, short speeches were made by various persons present, and the meeting broke up at a seasonable hour, with the best wishes of all present for the future prosperity of the "North Cornwall Farmers' Club." A MEMBER.

SEASON IN SOUTHERN NEW YORK AND VERMONT.

I have just taken a flitting through the States of Vermont and New York, and have been thoroughly surprised at the great difference a few miles can make in climate and vegetation. In the Schoharie Valley, N. Y., the farmers are busy planting. Asparagus and peas are already an inch out of ground, and winter wheat is very promising. Mayflowers and butterflies are abundant, and all nature is rejoicing at its release from the icy bonds of winter. But in Vermont, they scarcely think of even ploughing, the weather is still so cold and the snow so deep. We endeavored to reach Bondville, but not even a horse could be hired to convey us from the depot at Manchester. The stage had been obliged to suspend its accustomed trips, and the mail had been conveyed on the back of a resolute man for several days. "Twenty feet in some places, and you will slump clean through if you try it," we were told. Where there's no snow the freshets have overflown cornfields, potato-fields and meadows, and many houses and barns are, like islands, "entirely surrounded by water." All the farmer can do is to smoke his pipe and resignedly wait for the waters to subside. One farmer thinks he may get his plouging done by July. For many years the season has not been so backward as this and last spring. But people live to a great age among these green hills. Open fire-places or wood-stoves, early hours, fresh air and hard work, develope muscular strength and longevity. I found people aged seventy, eighty and ninety. One old lady of seventy, looking not a day older than fifty, told me about her mother, only *one hundred and one*, and who is "as chirk as ever you did see a' most," she says.

These hills are full of excellent white marble. In Manchester and Dorset the depots are surrounded with it in blocks, shafts and slabs boxed for transportation. To one who has always regarded marble as a "precious stone," its use for garden and street side walks, even for cellar walls and fences, seemed extravagant and wasteful.

May 1, 1869. SUSIE VOOL.

ROSE BUGS.

Permit me to say to your correspondent who is troubled with rose bugs, that I find it an easy matter to keep four or five hundred vines entirely clear of those pests. I have also about twenty common blush roses. I go out early in the morning, with a pail and pick roses and bugs together, as nearly all the bugs will sleep in the roses. Ten minutes is time enough to go through the whole. Follow this a few years and you will exterminate nearly the whole of them. P. B. FOLLANSBEE.

Lawrence, Mass., April 26, 1868.

REMARKS.—This corresponds with our own experience; but instead of doing all the work ourselves, we paid the children a small price per hundred for rose bug scalps.

A COW SUPPOSED TO BE MADE SICK BY EATING PUMPKINS.

Can you or any of your correspondents give me a remedy for a cow that has been sick all winter? Her sickness was caused by eating pumpkins last fall. Her bowels have been very much relaxed, probably one-third part of the time; especially if she eats any early cut hay, or succulent food of any kind, the disease will return. Several of my neighbors have lost stock by this disease, and it is here considered incurable. A SUBSCRIBER.

Tunbridge, Vt., April 24, 1869.

REMARKS.—We doubt whether the disease was caused by eating pumpkins. As some of the neighboring cattle have the same disease we should think it epidemic. Give her powdered chalk in her feed, and once a day a quart of lime water in her drink. Have no cows had the disease except those which eat pumpkins? Were the pumpkins rotten or frozen?

PARSNIPS.

Please to inform me of the best way of raising parsnips; also the quantity of manure per acre, how deep the soil should be ploughed, and the time of planting, and oblige an old subscriber. A. I. TABOR.

Holliston, Mass., May 7, 1869.

REMARKS.—We have found parsnips as easily raised as any other roots—more easily than most. The land should be worked as deeply and as highly manured as you can afford. The seed should be sown as early in the spring as convenient, though good crops are grown when put in as late as the middle or last of May. Make the drills about eighteen inches apart, and sow at the rate of five or six pounds to the acre.

Ladies' Department.

From the Home Journal.

GOD'S ALMONER.

A maiden fair once said to me,
Surprised at my too b ld advance,
"You need the grace of God I see—
You false knight with the broken lance;
Man's own deserts have never won
A woman's worthiest benison."

Alas, too true, my heart replies,
But this great tru h sends back to her:
In this sad world no man denies
That woman is God's almoner,
And her's the mission high to fill—
To grant h.s grace almost at will.

One-half the Christian world to-day
Will bow at sacred Mary's throne,
While all the other half will pray
Each to a Mary of his own—
Nor prav in vain, for God will be
Within His highest mystery.

He lives and moves in noble hearts,
His grace abounds in woman's breast,
An i her warm love His love imparts
To all whom it hath truly blessed:
How many a fiend the world hath known,
Who, truly loved, a saint had grown.

Come, then, Grand Almoner of Him
Who made the heart and knows its need:
Come, sacre i woman! Seraphim
And angels hear for what I plead,
And they will hold their sister true
Or false by what I gain from you.

DOMESTIC ECONOMY;

OR,

HOW TO MAKE HOME PLEASANT.

BY ANNE G. HALE.

[Entered according to Act of Congress, in the year 1866, by R. P. Eaton & Co., in the Clerk's Office of the District Court for the District of Massachusetts.]

CHAPTER XV.—Concluded.

Food and its Preparation,—[Continued.]

Since the introduction of tartaric acid—cream tartar—into cookery, to assist the fermentation of dough, the heavy paste puddings for fruit, apple-dumplings included, have greatly improved.

The best way of making this style of pudding is to prepare a paste according to the rule given for making cream-tartar biscuit in Chapter XIV. Roll this into an oblong form and spread into a deep dish or bowl which has been buttered,—there should be sufficient paste hanging over the edge of the dish or bowl to cover the top. Fill in the fruit in layers an inch thick, between which scatter a little ground cinnamon or grated nutmeg, then sugar, a cupful will be needed for cut rhubarb, peeled and sliced raw apple, gooseberries or currants; other berries, cherries, peaches and pears require less sugar. Fresh or canned fruit is best for these puddings; but dried apples, peaches and berries, are quite nice if well swollen before they are used. All filling but apples will need flour shaken upon it, enough to cover it like a coat of thin frosting; this is for thickening to the syrup. Then wet the edges of the paste with cold water and flour them so that they will adhere closely; fold them in; press them tightly together in the centre.

Have ready a bag of thick crash, like that for holding the ashes for samp, mentioned in a former portion of this chapter (except that the corners are made round by stitching the seam in curved lines.) Wet this bag, turn it wrong side out, shake flour upon it from the dredging-box, and then turn it again. Fold back the top half the length of the bag and fit the bottom into a large bowl. Invert this over your pudding in the other bowl or dish, and carefully tip the pudding into it. Wind the string around the bag (leaving an inch and a half of space to allow for swelling of the paste) and tie it as tight as possible—lest it should get water-soaked. Place a saucer in the bottom of the dinner boiler, which should be half full of boiling water and plunge in your pudding.

Never put a pudding of any sort into water that does not boil—it is the very way to make it heavy. For the same reason nothing but boiling water should be used to supply the loss by evaporation. This must be poured in every half hour. See, too, that the fire is hot enough to keep the pudding boiling continually till it is done. An hour and a half is needed to boil a pudding made of a quart of fruit. If made in the form of a roll, with the paste spread long and narrow, and folded over and between the layers of fruit, and placed in a long bag, one hour will cook it.

For apple dumplings: take a piece of this paste about as large as an egg, roll to a round shape six inches in diameter, place in it the four quarters of an apple, a teaspoonful of sugar and a very little spice; close the paste tightly; and tie a dumpling thus made in a small napkin that has been wet and floured, or take a large pudding-cloth—thick white drilling or crash—and tie one in the centre and one in each corner. Use the same precaution for catching and burning at the bottom of the boiler, and fill in boiling water as for a pudding. Three quarters of an hour will cook these.

Paste puddings are better boiled in a tin mould,—best *steamed*, the same dish in which they are formed being set in the steamer at the top of the boiler; or the fruit may be placed in a dish with sugar and spice, the paste over the top only, and the dish set on the back part of the stove with a tin pan inverted over it and thus cooked by its own steam; half an hour will suffice to cook it thus.

A nice paste for puddings may be made by mashing and rolling boiled potatoes upon the moulding-board till free from lumps. Mix with six potatoes half a cupful of cold water in which is dissolved half a teaspoonful of salt. Stir it all together;

then add flour till you can mould it with your hands. If you wish for a very rich paste, mix with the rolled potatoes a cupful of chopped beef-suet, but it is good enough without. This is excellent for apple, peach or pear puddings.

Paste puddings should be kept hot till they are eaten, be sliced with a *warm* knife, and served with hot sauce.

Batter puddings of flour, ground rice, or bread crumbs, or crackers—with raisins, berries, or cut peaches, apples or pears, should be made of cold milk, eggs—three to a quart of milk—beaten very light—the batter just thick enough to pour easily into the bag for boiling, or a well buttered dish for baking or steaming. One made of a quart of milk, &c., will require two hours' boiling or steaming, one hour's baking.

All broken slices of bread and crumbs from its cutting should be carefully saved, slowly dried in a cool oven and kept for making batter puddings, stuffing for poultry, fritters and omelets. When used they may be soaked in cold milk or water over night, and in the morning mashed very fine with a wooden spoon. If suddenly needed this dry material can be pounded and immediately used as thickening for the batter. A pudding of cracker or bread crumbs can be made and baked in half an hour. Dry gingerbread and cake may thus be used for fritters and puddings. But care should be taken to pulverize it quite fine, or the cook may have the mortification which not long since fell to the lot of a young woman, who, while attending a boarding school conducted on the manual labor plan, having assisted in preparing dinner, was told by a guest that he preferred raisins to doughnuts as plums for his puddings.

A cake pudding, made of equal measures of flour, milk, sugar and beaten eggs; with half the measure of butter or salted lard; soda and cream-tartar in the proportion for biscuit; baked or steamed an hour, and eaten with sweet sauce flavored with lemon juice or wine, is very nice. A plainer pudding of the same sort is made without eggs; with molasses and water instead of sugar and milk; spiced with cloves, cinnamon and nutmeg, the other ingredients being the same; and served with cold sauce. It is a very desirable dish.

A stale loaf of bread tied tightly in a pudding-cloth and boiled an hour, may be turned out for a pudding; to be eaten with hot fruit sauce. Alternate layers of freshly crumbed bread and sliced apple, with sugar and spice between, arranged in a deep dish, with crumbs for the top layer, a tin pan inverted over it, and steamed thus in the oven, is also a nice pudding. Or a deep earthen pan may be lined with buttered slices of bread, and the apple in layers with similar slices, sugar between them, the juice of a lemon squeezed over; and then a crust of bread for the cover. Two hours will cook these puddings. They need no sauce.

Custard puddings are made precisely as cup-custards or custard pies without crust; except that half the number of eggs may be omitted, and in their place the same number of tablespoonfuls of corn-starch, potato-starch, maizena, farina, ground rice, or sago substituted. Whole rice, after it is steamed, with the addition of a cup of milk and a teaspoonful of sugar for each cup of cooked rice, slightly spiced, and then steamed or baked for half an hour, is an excellent dish. A plain sago pudding—the sago washed and mixed with water (a cupful to a pint of water), sliced apples, or raisins, or prunes added, and baked three-quarters of an hour in a moderate oven, is very good with a hot sweet sauce flavored with lemon, or currant wine; or, the sago may be used as the cooked rice, just mentioned. To both of these, eggs are a great improvement,—they should be lightly beaten and added when the dish is all ready to be baked. Tapioca, soaked in warm water an hour,—one cupful before soaking being a good proportion for a quart of milk, a scant cup of sugar, and the yolks of four eggs well beaten,—flavored with lemon or vanilla, and baked three-quarters of an hour, is a very nice pudding. Beat the whites of the eggs with a tablespoonful of sugar till they are a stiff froth, and lay it on the top of the pudding to brown in the oven fifteen minutes before taking it up.

Blancmange is also an excellent and simple dish. Those who have plenty of milk should consider this a regular article of diet, it is so easily prepared and so nutritious. Let evening milk be closely skimmed the next morning, and reserve the cream to eat upon the blancmange. For two quarts of skimmed milk put a cupful of dry Iceland moss to soak in warm water, after it has been carefully washed and all impurities picked out. (Those who live near the seashore can get plenty of this moss after a storm. No matter how dry or how brown it may be, it will bleach by washing and spreading it on clean cloths in the sunshine for a day or two. It is sold by druggists.) Soak it two hours, then put it into the milk, and with it three or four peach leaves or a stick of cinnamon. Set this in a tin kettle, or pail, in the dinner boiler that is half full of boiling water, and keep it boiling from half to three-quarters of an hour. You can tell if it is done by taking a little into a cup and placing this in cold water. If it cools to the consistency of custard, take it from the kettle, and pass it through a hair-seive or a finely perforated strainer into crockery moulds or bowls that are wet with cold water. If it is not stiff enough to take form, boil it a little longer. Let it get cold gradually. Eat it with cream and sugar and very ripe berries, or other fruit—peaches and melons are best. Corn starch or gelatine may be substituted for the moss, but they are not so good.

Flummery of corn-starch, ground rice, or tapioca is quickly made: Mix four tablespoonfuls of either of these (of the rice, six) with half a pint of cold milk; pour on this a pint and a half of boiling hot milk; stir it well, adding a little salt. Set it on the back part of the stove; let the mix-

ture boil thoroughly three times; stir it well between the boilings, then add six drops of lemon, vanilla, or almond extract. Pour it into a wet blancmange mould and set it in a cool place. In quarter of an hour turn it out and take it to the table, with milk and sugar and preserved fruit or jelly. In winter, a fanciful dish for dessert called snow flummery may be made thus: Beat two eggs (one will answer) with two spoonfuls of sugar; add to this a pint of milk, flavored with lemon. Then stir in new fallen snow till it is thick enough to take form. Put it into a crockery mould. Let it stand two or three minutes; then turn it out and take it to the table.

In making whips, the eggs should be rapidly stirred in strokes from left to right, (not all around the dish)—just under the surface; the foam taken off as it accumulates, then lightly mixed with jelly. Powdered sugar and cream may accompany them, or sugar may be whipped with the eggs.

Frozen puddings are of nice batter or custard, thoroughly scalded by heating to a boil and kept thus five minutes; then frozen in the same manner as ice-cream. If you have no freezer, a tub, or large pail, with a closely covered smaller pail will answer. Put the material to be frozen in this smaller pail—be sure that its cover fits tightly, or the salt freezing mixture will get in and spoil it. Set this in the centre of the larger vessel. Put your ice in a thick bag and chop it there with the head of a hatchet, or pound it with a hammer, to pieces the size of a large egg,—the greater part of it somewhat smaller. Take of this six parts, and mix with it one part of coarse common salt. Fill this in between the two pails, till within two inches of the top of the smaller one. After it has stood five minutes begin to move the inner pail around, and from left to right, holding it firmly by the handle of its cover. Keep up this movement a few minutes; then (being careful that none of the icewater gets in at the time) open the pail, and with a knife loosen the frozen portion adhering to the sides and stir it lightly with the unfrozen; then close it again, and go on shaking the pail around and opening it occasionally to loosen and stir the material till the whole mass is frozen. Keep the tub covered with something woolen—an old shawl, or blanket—till the pudding is wanted at table. Ice-creams, as mentioned above, are frozen in the same way. They are only custards, in which corn starch may be entirely substituted for eggs—one spoonful for one egg—or, half of each may be taken. Flavor it with the juice of fruit or extracts. Take it into moulds a few minutes before it is wanted; from which turn it when carried to the table.

It is sometimes so difficult to get real cream that an imitation article is acceptable. It is made thus: Heat a quart of milk to boiling. Beat two eggs, (one will answer, using more flour) a tablespoonful of flour or cornstarch, a piece of butter an inch square, and a teaspoonful of sugar, till thoroughly mixed; then pour the hot milk upon it—stirring it well. Return it to the kettle, let it boil once, and then set in a cool place till wanted for the table. Cream sauce, for puddings, is made by scalding a pint of milk and stirring into it two eggs that have been beaten with a cup of sugar. Two peach leaves may be boiled in the milk; or rose water (a teaspoonful), or a few drops of any fruit essence added.

Berry sauce: To a cup of cold water put a quart of cranberries, blackberries, raspberries, or strawberries. Boil them till they can be mixed easily with the water. Rub through a hair sieve,—sweeten it to your taste. To make a hot sweet sauce: Mix a tablespoonful of flour with two of cold water; pour upon it half a pint of boiling water. Then boil it three minutes. Add next one cup of sugar and a teaspoonful of butter. Boil this the same time. Then squeeze in the juice of a lemon or orange, or flavor with two tablespoonfuls of currant wine, or a few drops of any extract. Cold sauce: Beat together for five minutes two eggs, two cups of sugar, and one cup of butter; with a few drops of essence or extract.

These different methods of making puddings and their sauces (all of which I have found excellent) will certainly furnish any family with sufficient variety to place a nice and wholesome dish every day upon their dinner table. No matter what other food may be indulged in, this should be a sure thing to be anticipated, especially by the children. The chapter upon cooking vegetables and meats, and the making of pickles, etc., must be deferred for the present. Next month we will talk about House Cleaning and its attendant operations.

For the New England Farmer.

FARMERS AND FARMERS' DAUGHTERS.

Mr. Editor:—I notice in the Farmer of April 3, an extract from one of your correspondents, relating to girls on the farm, with some remarks by yourself. I like your comments very much, and although unaccustomed to write for publication would like to say a few words.

The idea seems to be very prevalent that farmers and farmers' families must necessarily be inferior in intelligence, refinement and social position to other classes. If a farmer's daughter chance to go away to school, to play the piano, to embroider, be versed in any of the fine arts, she is thought to be getting "above her position." Is a farmer's daughter supposed to have no nobler powers, no loftier aspirations than are required for washing dishes or scrubbing floors? Is she, reared among nature's wonders, finding on every side side food for thought and study, ever called upward by nature's ten thousand voices around her, supposed to have no love for the beautiful? If she has talents, why not cultivate them? Not to the exclusion of other duties, but giving due attention to household affairs, and employing leisure hours in

the perhaps more congenial pursuit of improving the mind and acquiring those accomplishments which add a charm to the home circle, thus combining the useful and the beautiful in one harmonious whole. Why should not her father, as he sits down at night, wearied with the labors of the day, listen to the refreshing strains of music, and feast his eyes upon the tasteful home decorations, devised by her fancy? Why should she *not* embroider, and ruffle, and dress fashionably? Would you have her render herself conspicuous by dressing differently from her associates, by keeping several years behind the fashion, or by wearing nothing but the plainest material?

Although, as your correspondent suggests, a few superficial acquirements may tend to elevate one in her own estimation—and cause her to look down upon former companions and former pursuits; a *true* education would have a very diverse effect, leading her to view the knowledge already gained, as so slight in comparison with the vast amount yet unknown as to leave little room for egotism and bigotry. I do not think that politeness and accomplishments are at all incompatible with an ability to properly direct the management of a household, and think it unfair that such descriptions of farmers' families, as are sometimes given, should be allowed to prejudice our city friends against those, of whom, personally, they know nothing. Perhaps, if public opinion were less against farmers and farming, the boys and girls might not be so ready to leave the old homestead for villages or cities. I think our agricultural schools and colleges will produce a reform in that respect, and elevate the farmer to his proper position.

The majority of our farmers do not take sufficient pains to make their homes *attractive*. If their buildings and fences are in good condition, and their yards neat and clean, they think that enough; but how much they might be improved by the addition of a few ornamental trees and shrubs, or by some fanciful improvements! Nor need ornamental trees necessarily be useless except as ornaments. Who would not admire in a front yard, a well trained pear tree richly laden with fruit? What more beautiful vine for a house than a grape-vine trained upon a suitable trellis, with its beautiful, fresh green foliage, and its still more beautiful clusters of purple fruit? These are ornaments, and *paying* ornaments. J. N.

Reading, Mass., April 17, 1869.

DOMESTIC RECEIPTS.

BREAST OF MUTTON A LA BOURGEOISE.—Take a breast of mutton and put it into a stew pan with water, a glass of white wine, some parsley, chives, a clove of garlic, two cloves, pepper and salt. Let it simmer slowly till done, then strain the sauce, and add to it some butter mixed with flour; put it on the fire to reduce, and strain off the grease; add the juice of a lemon or a spoonful of vinegar, and serve the sauce round. The mutton should be boned first. A nice fillet can be cut off the upper part of the leg if required, and the upper part may be plain boiled and served with sauce made with butter thickened with flour, to which add some green paisley chopped fine, and either capers or pickled gherkins, fine or chopped.

GOOD RUSK.—One pint of new milk, one pound white sugar and two eggs beaten, stir these up with some flour into a sponge, add yeast and set to rise at night. When light next day add sufficient flour to make a soft dough and let it rise, then mould in pans, and when light, proceed to bake. Add a tablespoon of melted lard or butter to the sponge.—*Germantown Telegraph.*

COCOANUT CAKE.—One pound of grated cocoanut, one pound of sugar, half a pound of butter, six well beaten eggs, and half a pound of flour; add the cocoanut to the cake just before it goes into the oven.

CREAM PIES.—Four eggs beaten in a half pint of cold milk, with six large tablespoonfuls of flour, a teacupful of sugar, a little salt. Heat one quart of milk nearly to boiling, then stir the eggs, etc., into the milk and stir rapidly until it thickens. Add one teaspoonful of lemon. Make the pastry as for custard pies. When done, pour the cream on the pies and set away until cool.

CORN MEAL PUDDING.—Take five eggs, beat well separately, three tablespoonfuls of sifted meal, three tablespoonfuls of sugar; beat all well together, putting in the whites last. Bake three-quarters of an hour.

A DELICIOUS DESSERT is made as follows: Put a small teacupful of tapioca to soak for a few hours in warm water. Pare six or eight good cooking apples. Core without dividing, and fill the holes with sugar and a little lemon juice, or grated nutmeg. Pour the tapioca mixture around the apples, grate a very little nutmeg over, and bake an hour, until done; serve with sweetened cream.